

Front

1998. Central States Field Trip
May 29 - June 16

Book 1

Thank
You

1PAR. 003199

1. Nashville, TN
2. Georgetown, KY
3. Cincinnati, OH
4. Marion, IL
5. Dubuque, IA
6. Decorah, IA
8. Mitchell, SD
9. Rapid City, SD
10. ~~Billings, MT~~
11. Missoula, MT
12. Spokane, WA
13. Billings, MT

Locations from Holland & Patzovskiy
p. 258. B. - Bailey section. Feenvale &
Bailey Parkway } Sequatchie Fm

p. 258. VV. Vietnam Veterans Highway
ca 200 ft of section. From top of middle Ord
into "Henderson Sh." keipess Fm, Aspinwall Fm
& Feenvale/Sequatchie Fm ✓

p. 258 Springfield Hwy. SH.
V. high Feenvale/Sequatchie Fm ✓

p. PW. Peyton's Warehouse Aspinwall Fm.
Bottom x-bedded ss. succeeded by
packstone. ~~? Is it a long distance at~~
Goodlettsville located ✓

CV, WPM are all in same area along
US 231

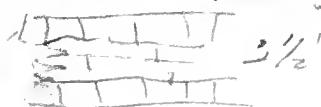
Log q. Ashland City Pike
St. Hwy no. 12
see p. 89 Wilson (19)
for Section beneath
Cumberland R. bridge I checked this
& p. 90 at Tordonia ^{out}

97.5

Bassler, R. S. 1932. The stratigraphy of the
central basin of Tennessee:
Nashville, Tennessee Division of
Geology, Bull. 38, 268 p.

* R. - in 3rd Conference section 1' thick (2) / 22 m³
 No. 258 D. 100 m N. S. 1' total thickness
 1' thick section

48 (Spano's)
 5/21 (15') Stop. ①



200 ft. up dip

3'

100 - 150 ft.
 1.2 m. thick

61

gray

15'

orange water

yellowish brown yellow

C2

C1

3'

light
St. green claystone

gray

15'

gray

4" red

dark

red

1-2"

4"

2-3 times

↑

fossiliferous

↑

2"

6"

2 1/2"

brack. layer

white shells

whitish shells

white gypsum

mod. off. - off.

5"

6"

100 cm

100

From H & P (1997). T. Seolt. Res v. 67, p.263

Vietnam Vets Highway. Series of roadcuts on both sides of exit ramp from TN 386 (V.V. Parkway) onto ~~the~~ US 31 E, Goodlettville, TN. Quad 36°18'N, 86°39'W. Additional roadcuts just west & east of exit ramp along TN 386. lowest part of the section exposed at roadcut on

Chuck has measured about 105 ft. = 32 meters

but Holland & Patznowsky 1997 have 152 m at Vietnam Veterans highway intersection.

3

May 21, 1981 - Stop 4B (2)

- There's a connection between them.

Site 1 and base of top 1-2

Jan. 5, 1920 H. G. - 13

(+) - 2,2-dimethyl-1,3-butadiene

T, with the
B. & H. Co.

???

1 - 2 years?

2000 A.D. is 75% (from 1900)

✓ Seth fine
✓ sale will fit.

(MFs) are def...:

Internet Learning, where e-mail

It's time for a new grey scale.

1-2 Jeppesen chart 201

100

Anhänger

3

→ measured 10' from top Leaves
Sapling (Cordilleran) coll. 5/29/98-4

Platynotia phaea *annulata* (C. H. Muller)

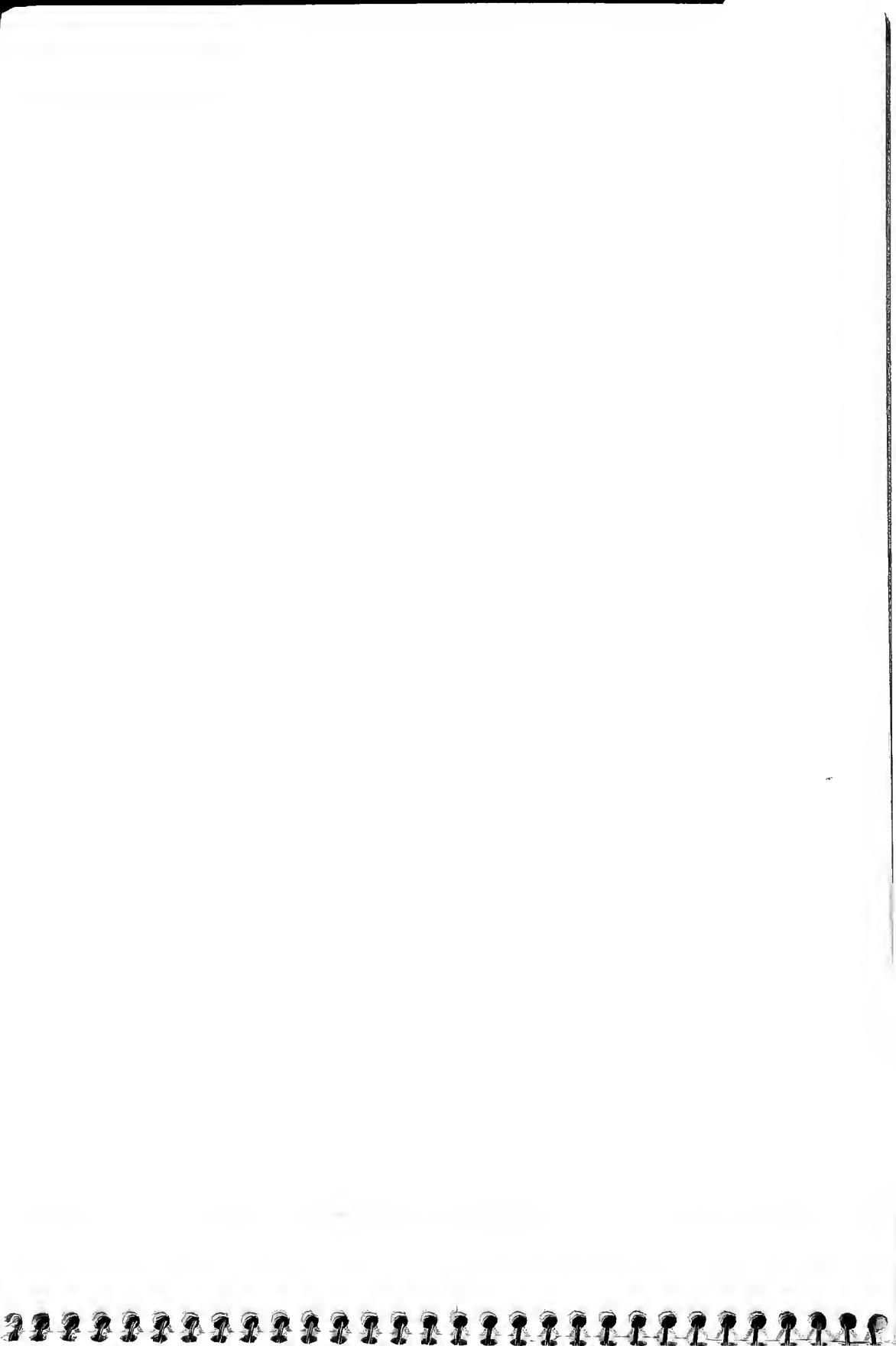
Ls, v.v. silv.) which is affected

gr. 6-7. No fossil on metacarpal
rieffles

6

~~44'~~ $\frac{1}{2}$

Crossed 15-18st



5/29/98 - Day 2 (3)

(4)

Kasper Way - "Kasper" road, "Kasper Way"

"Peyton Warehouse" no longer business

Kasper Way is a short service road between warehouses on the east and US 41 + TN 11 on the west. It lies just east of I-65, 1.7 miles north on US 41 from Goodlettsville city limits.

C5

Hollander is the SB/IS, but I don't see one.

C4 (I don't see the "ball-joint") Shale
structures here side

was still
in place. Sparsely visible,
so it's quite even, 3"-4" esp.
not much variation; thinner than
beds across outcrop ± 100 yards

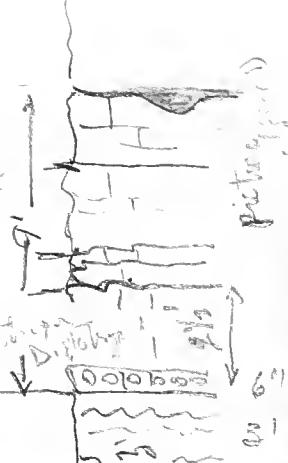
MFS?

light gray

Ferruginous bed

3 sets - e.g. X best set

+ 2' thick

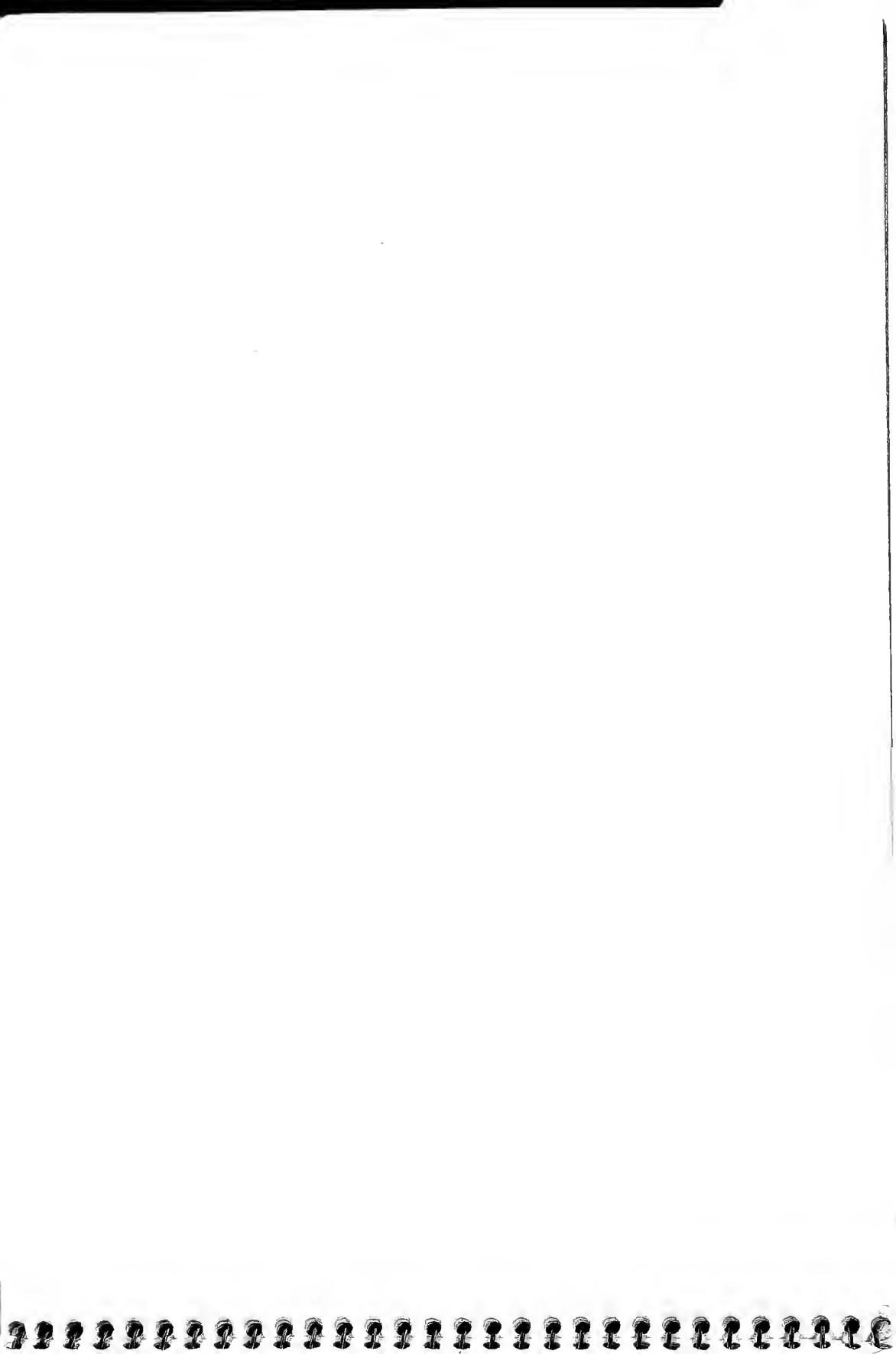


C4

modular packed, shaly

Length

2'



5/29/98 - Site 3. Springdale Region,
0.5 miles north of ^{Supper} Beaverton, TN. (4) (5)

This is about 1 mile to 1.5 miles north of Kappa Way
on U.S. 41, north of Goodlettsville, TN

Agate, etc.

eggs

3' 5" at

8' 1" to

Caves

(SB)

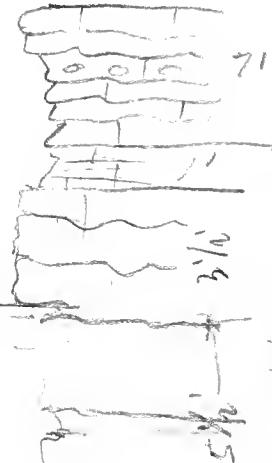
Sandstone line

Shale/silt 4"

lumpy

71

→ Platol



(*Strophomena*, septaria & shells)

(SB) Congl. calcarenous, solidly cements common (gr. stn)

Dolomite, large ls. thin bedded

→ fine & long thin ls. if I saw it

Shale/silt to top

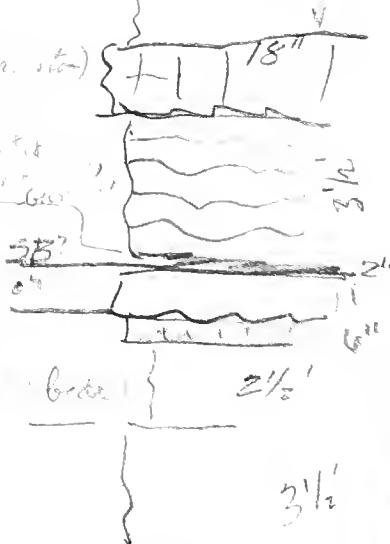
if favorable large ls.

dolostone, & bedded v.s. also ls. &c.

Dolostone/sandy, lowermost

Shale matrix & ls. with thin bedded

dolostone, v. sandy, fine ls.
& bedded,





(b)

Saturday May 30, 1998.

③ Went N on US 24 to US 440 W to on
US 440 W to Dr. D.B. Todd Bl then joined
Clarksville Pike (US 41A + Tenn 12) on to
Cumberland R. bridge. N. side of
bridge Chuck took a track at telephone
switch box down to outcrop of dolomitic
limestone below Mt. Long bridge station (N.
stream side). Much weathered, fine to
medium grained and sandy limestone.
Ledges thin on a steep bank rising
about 10' from river bottom.

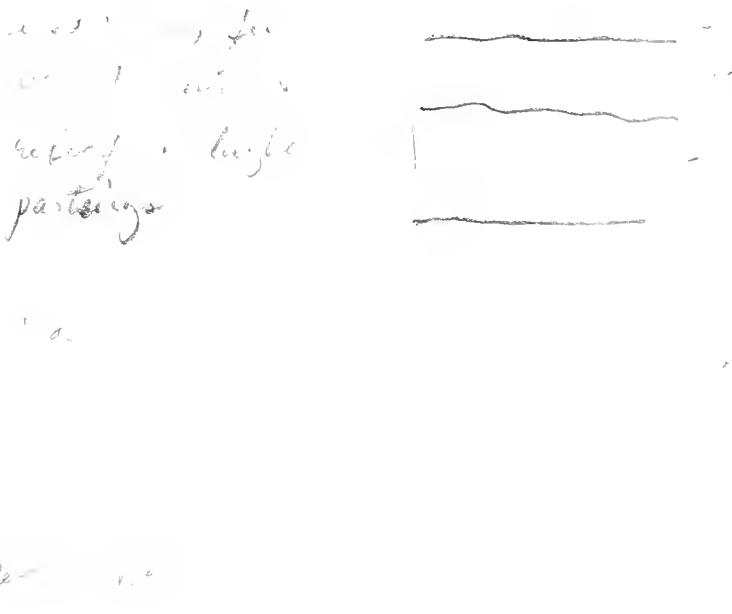


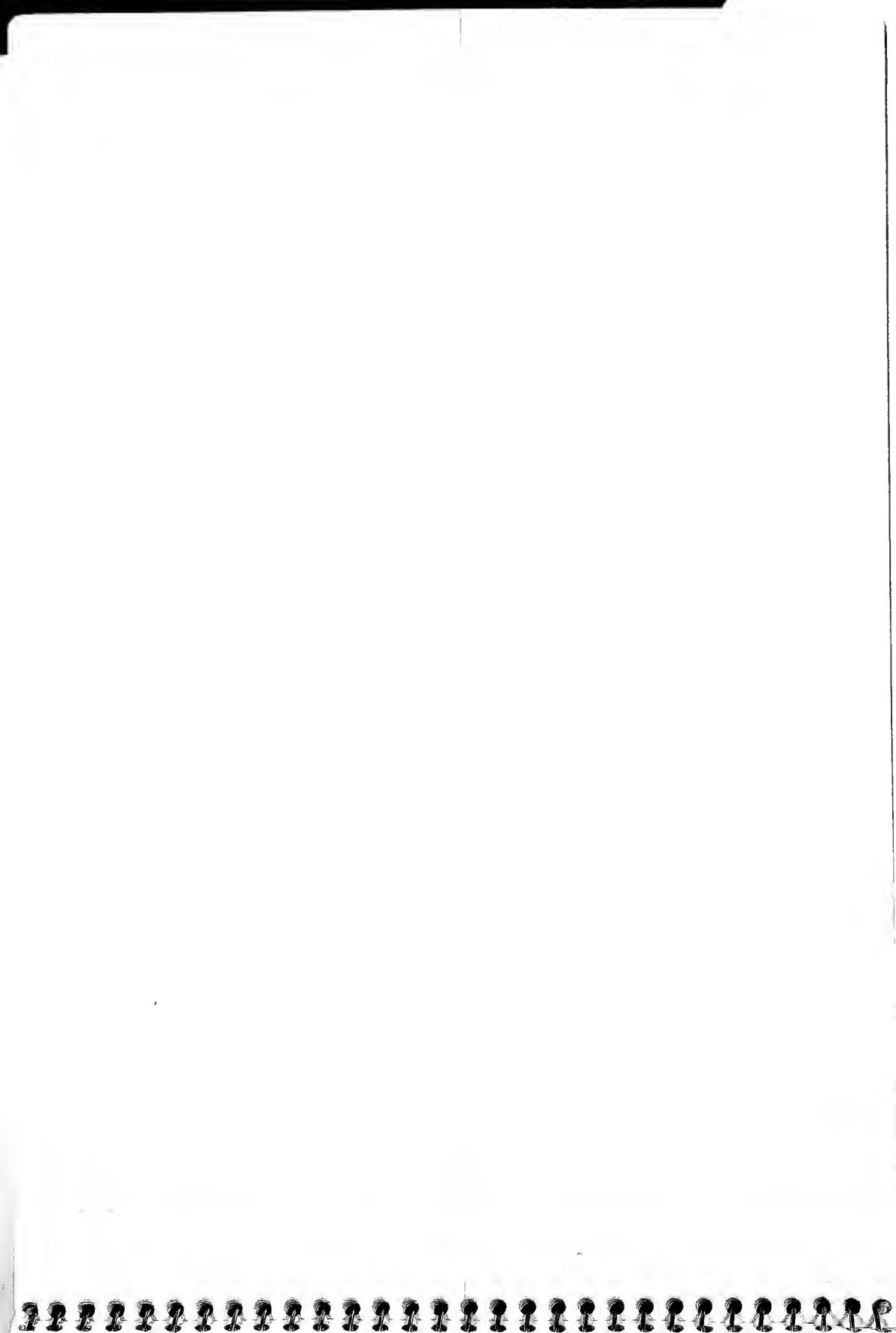
(7)

Sat. 5/30/98.

- ⑥ West of Cumberland Bridge off Clarksville Pike, down 2 projects toward river; ga location - habitation in a residential area; see section below

See Wilson, p. 90





5/30/98 cont'd

(8)

P. Q.P. Wilson

1. *Sordonia* / Eaton's Ch Rd. Ok on hill in private property. Did not pursue. V. weathered

2. ~~East west of~~ ^{boulders} Bentley camp of TN 155-

⑦ Bixley Hwy at TN 12 (Ashland City Pike) S 8
≈ 2.5 miles west of ML King bridge (TN 12)
over Cumberland River

LS Calc.

section 12 in.

LS, dark gray,
veggy limestone, gypsum nod.

LS, dark, mostly, nodular + iron



24.6 ft. in. Limestone

15 m. =

2½"-3" Siltstone

Calcareous, massive, with lenses bar.

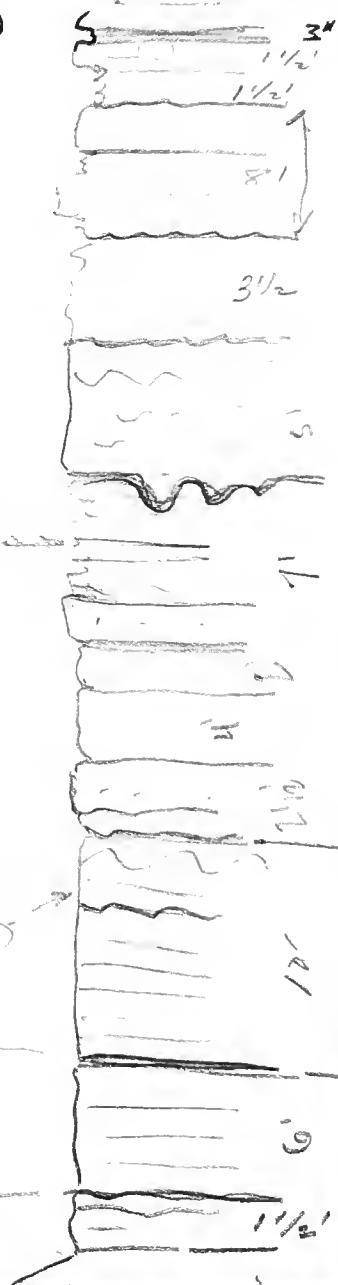
± white

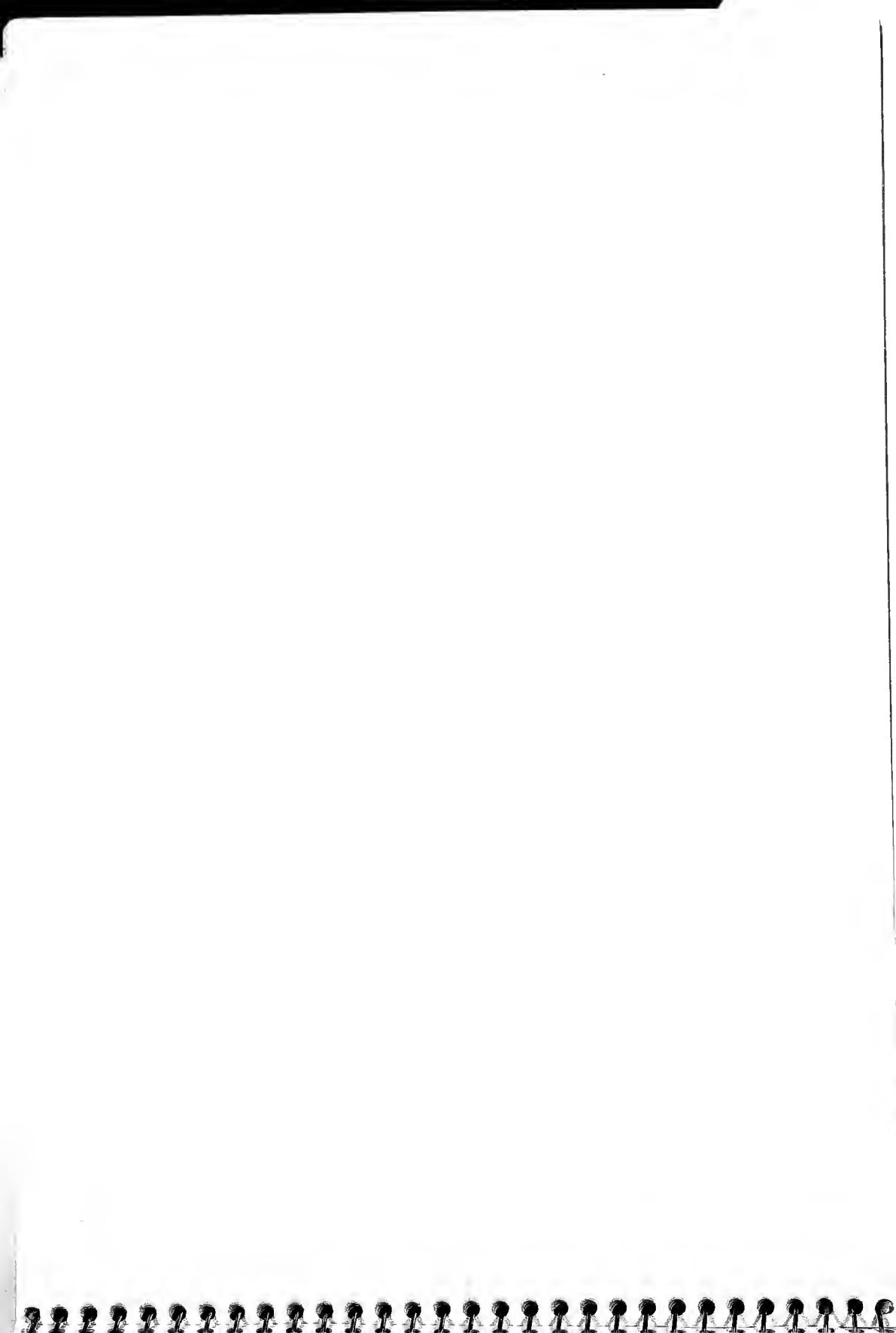
Sand

3" silty ls, nodular beds far apart
Siltstone & packstone 5" part (calcareous)

2" dark gray silty shale
med calcareous, some lenses
limestone, packstone + b. sand.

Brach concent at top
dark Calcareous Palettes





5/30/98

(9)

⑧ Clarkesville Limestone at Briley Quarry (TN155)

Section measured on SW corner of
cloverleaf; ^{east} south bound

~~off ramp~~ - H+P's locality, ^{SW corner}
~~This is junction with US 41A (Interstate)~~

see next page



3 1/2'

70' - 10' 9' - 10' 10' - 11'

9'

Limestone + dolomite

S. - 2 1/2'

Calcareous dolomite

6 1/2'

2 1/2'

Calcareous dolomite
limestone + dolomite
lt gray - massive + 10' (1)



10'

Grayish dolomite + dolomite
fossils + scattered fossils

Some light dolomite gypsiferous near

base,



3'

Calcareous dolomite, light gray near base



8"

Dolomite, light gray - 75'

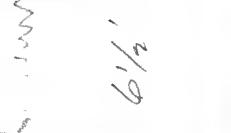
1"



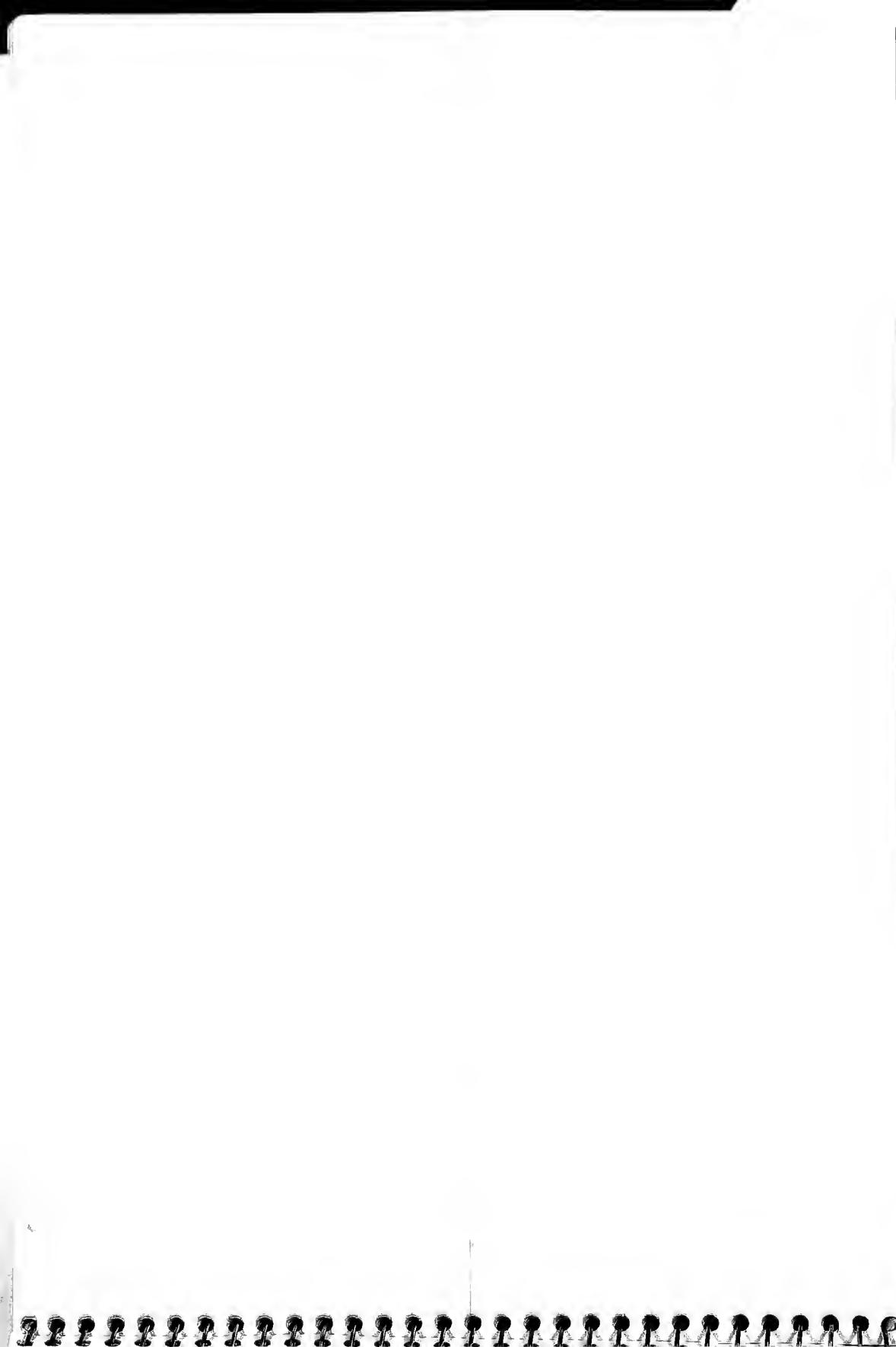
5"

Light gray, fossiliferous, nodular dolomite beds

Brachiopods, bryozoans common (?)



6"



5/30/98

(C1541A)

(GN 155)

(10)

Clarksville Pike to Bailey Pike section continued

from previous

W.E. -

5 pictures here -

We think this was Holland & Peltzowsky's
(1997) p. 258 Bailey Pewee section. However, a lot
more section is exposed than shown by H + P.

To -

→ Holland & Peltzowsky
(1997), p. 258, Bailey Pewee

2' - 3' thick
red calcarenous bed
with gypsum

Bottom: calcarenous bed (3' each)
calcareous sandstone + gypsum has X-shaped
troughs

Calcareous, dolomitic, granular & pebbly limestone

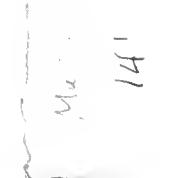


Covered 3½'

Sulfur & lime areas

at base dolomitic limestone

2½'



14'



4'



7'

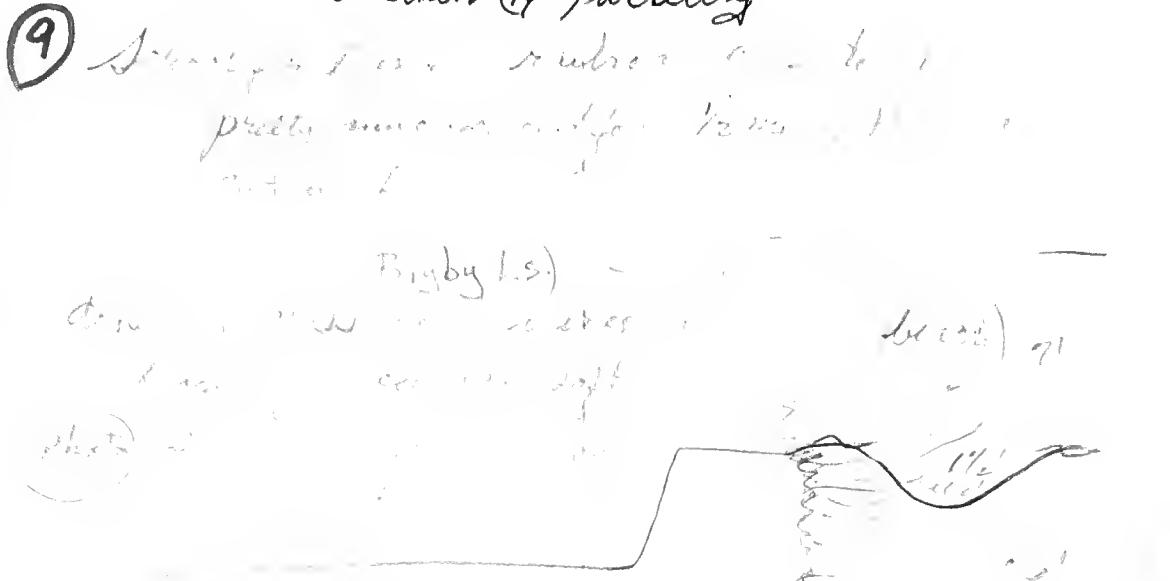


4'



(11)

5/30/44 Wilson (♀) locality



Bottom of bedrock
is about 30' above bottom of
Bryngby ls. (This is the same
as last time, I think.)

Photo

1.000 ft. 1.000 ft.

behind Schoolhouse - a section
measured Sept 27 suggests the Bryngby ls. comes
to sea level



TN 255 Donelson Pike north bound
at Nashville International Airport

62

10 5/31/98

See over page

nest locality
see page 14

P. 97

Baker's Station section. (Wilson loc. 5)

Nashville Airport (Holland & Patzocovsky
loc.)
Stop 1 * E. side rel. Fresh cut
North bound off ramp to W. side
rel. to

Int. Nashville Airport
Measured exposures on E side

Int. Nashville Airport
Measured exposures on E side

Contained within:

Quartzite; fossil debris & sand interbedded with a 2' fine

212

St. Sultet & C. nach

Sett, eight g., of C. sis acuminata,

Det b. ut - nr 21 - 13 (PS) a 9 stekker (Kinnarps), pris

3" to 3" bands, by .5" at 1½ in.

7.10 - 20 -

(= Eerde, die Neu)

With the east changes in —
to the left 7.8' 6

15. well-ribbed ? 25' 6"

a. + alv. + m. deli.

Sphaerium - b. 15. but not at first

highest 1/2' is a calcarenous soft dolomite
Ls, bed 3'-4', calcareous, sandst, Xe-2

Ls, vfgm; jacket fr. w. t. the str. in.

The autocorrelation function in the satellite, calculated

Believe me affe, just.

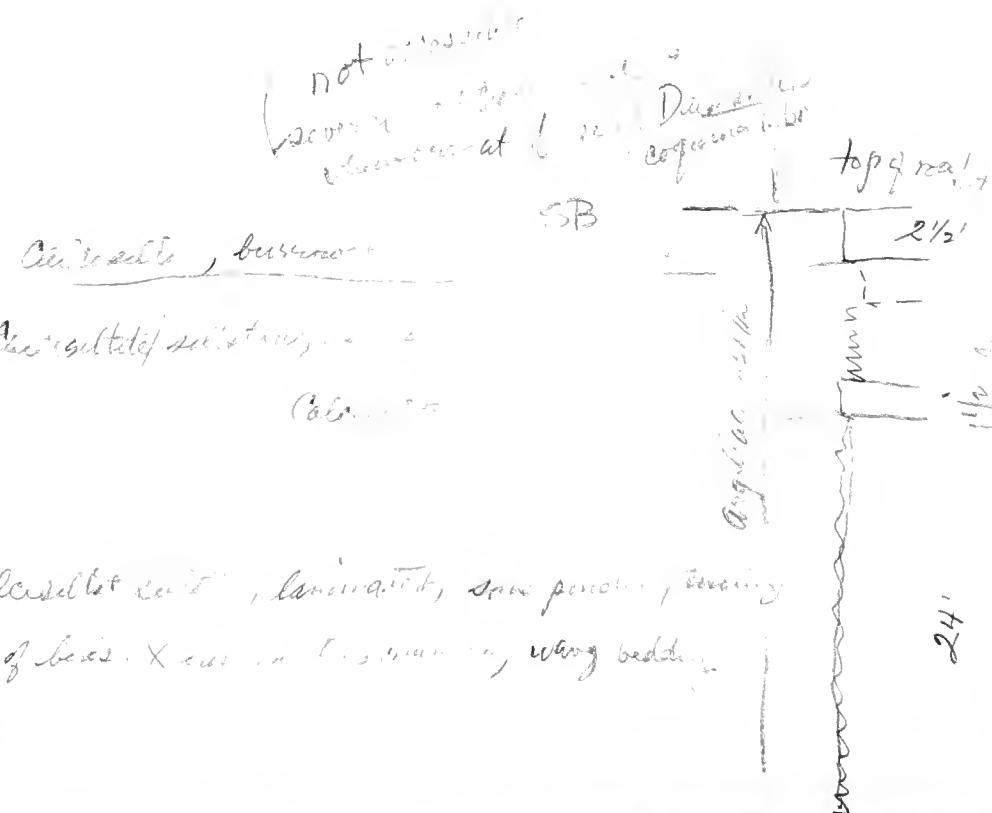
* It may be that E. side of road had been widened & ; presented a more unweathered section in comparison to W. side which was not as complete at top of section.

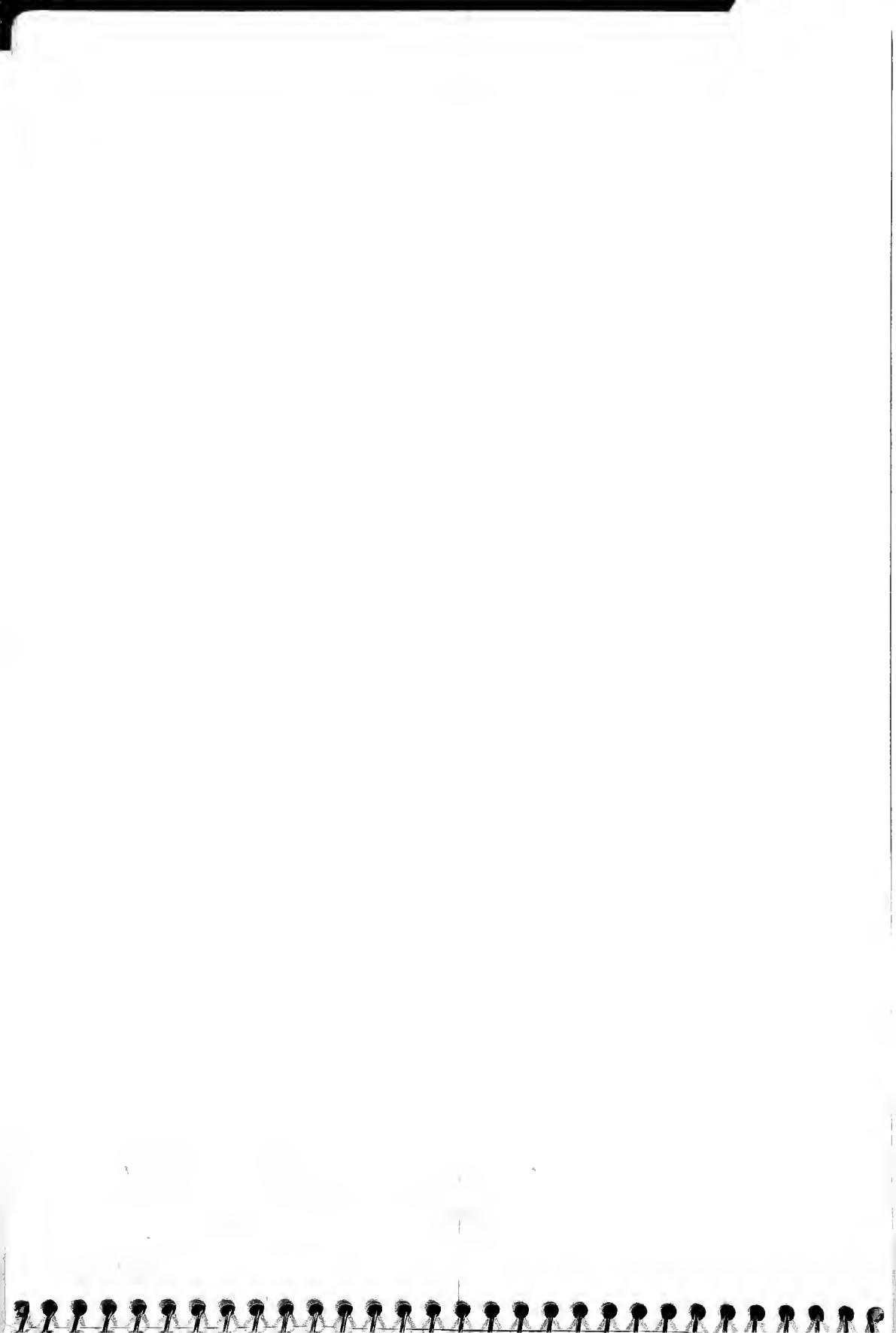
5/31/98

(13)

Nashville Airport
Donelson Pike, north bound exit.

Continued p. 12





5/31/98

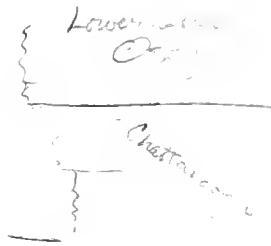
(14)

Baker sh. in Railrd. Cen. Stop 2

11

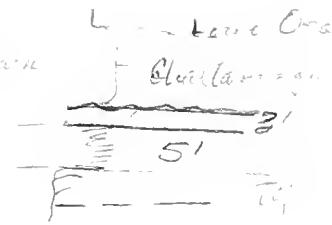
Northwest of Gouverneur Ille — the Lake station Rd
crosses the Ille at ⁽¹⁹⁶⁰⁾ Lake (about 2.25 miles north) st
of for Tiville. Turn west for about 3/4 miles to
crossroads. Park at tracks on north side, 1050 ft.
Three railroad cuts expose Ossipee down to
⁽¹⁹⁶⁰⁾ (each ^{is also} ^{about} 1/4 mile long) further SSE
to a 4th railroad cut.

pass. plan



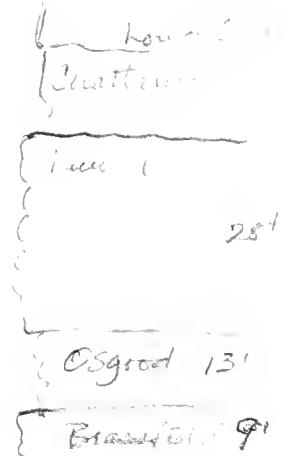
first cut south (175' so. & 4)

625' (exposed along track
from son reports) ^{Lego}
+ we found) ^{Marion}
Laurel



2nd cut south 600

(6: erosion + poris)
+ two feet



Continued on next page



(13)

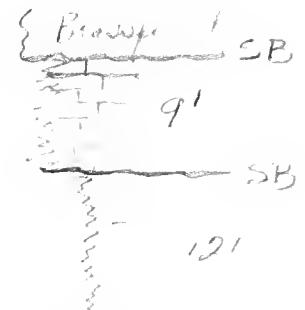
Baker Section continue.

3rd cut. (1550' west of cut 2)

350' long cut

we did not make over 100'
but to get Brass Park

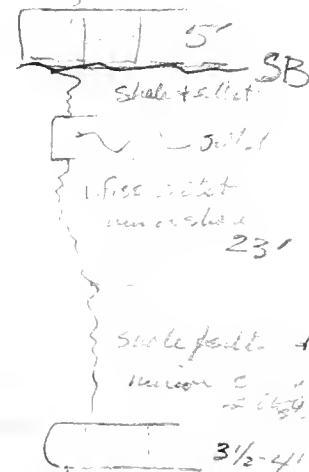
Top of cut -

① Ls, irregularly bedded, wavy,
facing up & down

Silty-shales & mudstone in 4-8' beds

Ls, massive, Xerophytic coarse material,
3' thick, lower 2' ls in blocks,Lygophis brevis, Herpestes, /
Prado & gecko /

③ Shale + mudstone



④ Disrupted siltstone

Siltstone - a coral bed

Pecten fragments & Strophomena

SB

⑤ Siltst., 1' - 2' on corals
Thin siltst.

Part of R.R. cut

not well exposed
50'

⑥ Ankerite



Aug 16

(16)

June 1, 1990 - Santa Monica

± 1.2 miles west on US 112 from intersection US 31
at Colonia, Texas - Stop 1 (12)

See Fig. 10, 15K

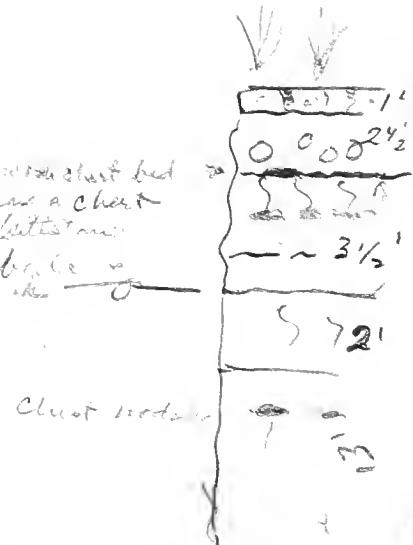
Locality: Colonia + Tip
US 112 is a by-pass with arena road. Colonia.

Ls. longispirifer

5 ft. — yellowish bent bed
Ls. bent over upper surface righted up and lies a chert
band (similar) limestone
cross to fine calcareous wacke. ^{beds} 3-6" thick
Ls., calcareous & granular.

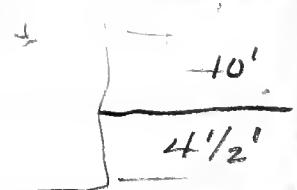
3-6" beds"

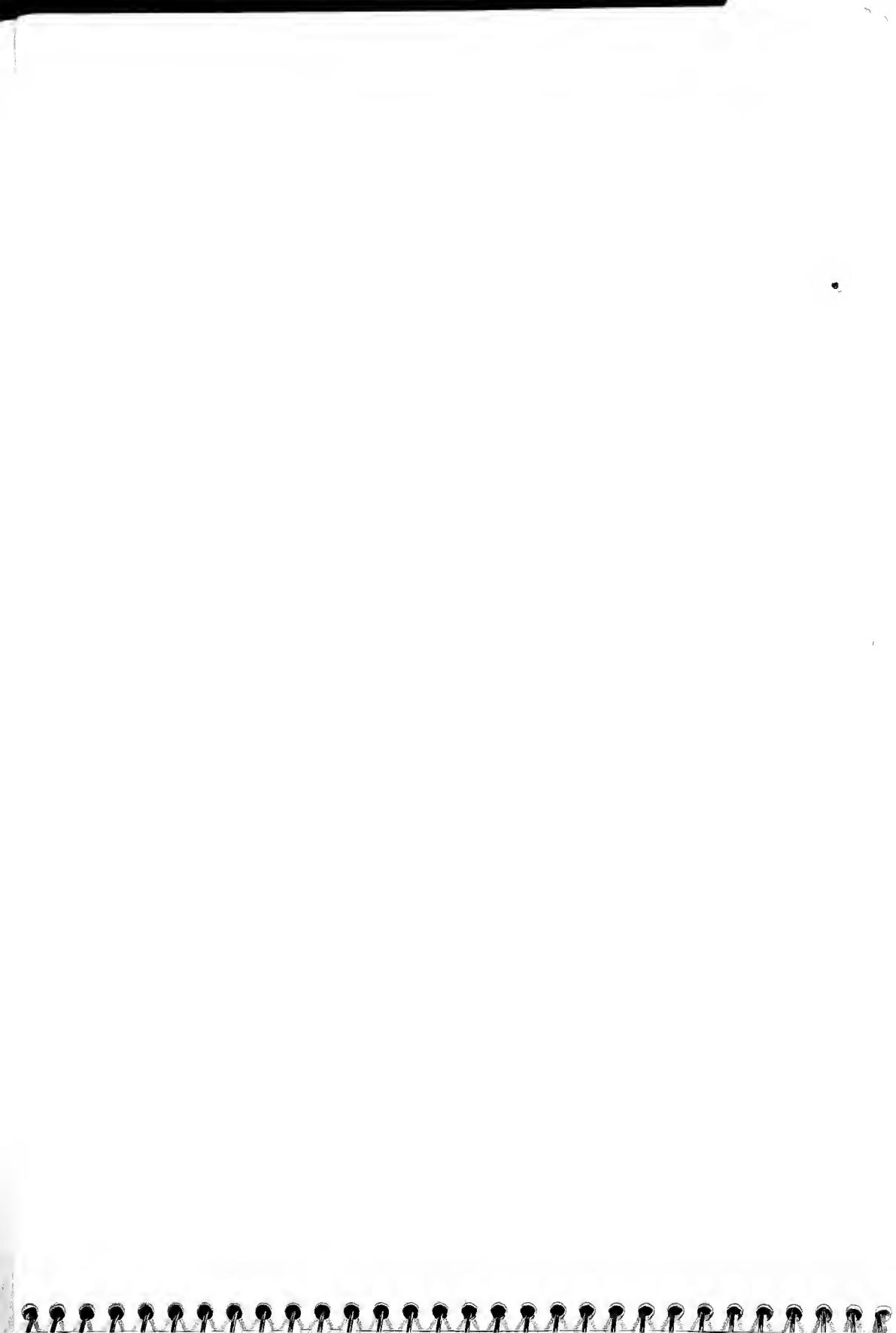
photo 2
here



Ls., bent over, but lies to tip
are silicified and cut out or very

Ls., very bent over, massive + fissile +
calcareous, silicified





6/1/98

Formation B

Top

Locality

Stop 13

Locality Stop 13

Top of 10' + 5' m.s. wavy Stop 1
1.2 miles northwest of overpass over TN 50

Illinoian Subglaciation of Holocene Paterson, 1993 p.

1.2 miles west of junction of US 412 and Tenn 50 on US 412.

dark tan to blackish
+ silty,

Formation

3'-5" sublenses

Top brown and yellowish

Lower Carter (no upper)

Clayey, fissile +
concentric

30-34'-40' thickness

dist. at first H+P:
HST units

4' uncalibrated
4-5' max. c.i.

5'

2'

2'

2"

Chart no. 1

After 1 sec. start at Exit Pk - Head on
at 40% 1/2

14

Loc. 6-1-98-B) Hs. on 115'.
width of 11' 11 1/2'
col. 7N 37. 5 photos.

Collect. 6-1-98-B.

Hs. on 115'.

Sticky

Ls, massive, wavy, some wavy, brownish 2 1/2'

2" to 3-4" thick - SB?

3'

2"

1 1/2"

1"

1/2"

1/4"

1/8"

1/16"

1/32"

1/64"

1/128"

1/256"

1/512"

1/1024"

1/2048"

1/4096"

1/8192"

1/16384"

1/32768"

1/65536"

1/131072"

1/262144"

1/524288"

1/1048576"

1/2097152"

1/4194304"

1/8388608"

1/16777216"

1/33554432"

1/67108864"

1/134217728"

1/268435456"

1/536870912"

1/107374184"

1/214748368"

1/429496736"

1/858993472"

1/1717986944"

1/3435973888"

1/6871947776"

1/1374389552"

1/2748779104"

1/5497558208"

1/10995116416"

1/21985232832"

1/43970465664"

1/87940931328"

1/175881862656"

1/351763725312"

1/703527450624"

1/140705490128"

1/281410980256"

1/562821960512"

1/1125643921024"

1/2251287842048"

1/4502575684096"

1/9005151368192"

1/18010302736384"

1/36020605472768"

1/72041210945536"

1/144082421891072"

1/288164843782144"

1/576329687564288"

1/1152659375128576"

1/2305318750257152"

1/4610637500514304"

1/9221275001028608"

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1/36885100041114432"

1/73770200082228864"

1/147540400164457728"

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1/3777034244210085888"

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1/6043254790736137408"

1/1208650958147227416"

1/2417301916294454832"

1/4834603832588909664"

1/9669207665177819328"

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1/38676830620711317312"

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1/166115588054839779367832"

1/332231176109679558735664"

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1/114153762884276736839328"

1/228307525768553473667656"

1/456615051537106947335312"

1/913230103074213894670624"

1/182646020614842778934128"

1/365292041229685557868256"

1/730584082459371115736512"

1/146116816498674223473304"

1/292233632997348446946608"

1/584467265994696893893216"

1/116893453198939378778632"

1/233786906397878757557264"

1/467573812795757515114528"

1/935147625591515030229056"

1/187029525118303060445812"

1/374059050236606120891624"

1/748118100473212241783248"

1/1496236200946424483566496"

1/2992472401893048967132992"

1/5984944803786097934265984"

1/1196988960757219586853192"

1/2393977921514439173706384"

1/4787955843028878347412768"

1/9575911686057756694825536"

1/1915182337211551338965112"

1/3830364674423102677930224"

1/7660729348846205355860448"

1/1532145869769241071172896"

1/3064291739538482142345792"

1/6128583479076964284691584"

1/1225716695815392856938368"

1/2451433391630785713876736"

1/4902866783261571427753472"

1/9805733566523142855506944"

1/1961146713304628571101388"

1/3922293426609257142202776"

1/7844586853218514284405552"

1/1568917370643702858881104"

1/3137834741287405717762208"

1/6275669482574811435524416"

1/1255133896514962267048832"

1/2510267793029924534097664"

1/5020535586059849068195328"

1/1004107117211969813638656"

1/2008214234423939627277312"

1/4016428468847879254554624"

1/8032856937695758509109248"

1/1606571387339151701821848"

1/3213142774678303403643696"

1/6426285549356606807287392"

1/1285257109871321361455784"

1/2570514219742642722911568"

1/5141028439485285445823136"

1/1028205687897057089166272"

1/2056411375794114178332544"

1/4112822751588228356665088"

1/8225645503176456713330176"

1/1645129100635291342665352"

1/3290258201270582685330704"

1/6580516402541165370661408"

1/1316103280582

H + P 97 places a SB in the micrite bed. = $\frac{M6}{M5}$. I
suggest that the micrite is a may flooding unit, and
the SB is either at the base of the micrite or (and) about
34' below in a conglomeratic ls.

8-1-78

at IN 373

11

U.S. 65 EXIT 32 & I-4 P 1797, PA
(middle Lebanon ls) (15)

Ls, ledges irregular, brownish yellow,
Coll. 6-1-98-C ~~Ridge top, orange, tabular, columnar,~~ 5'
~~D. later. burrowed~~

Coll. 6-1-98-D
~~Photo here~~ mudstones, dolostones, + sandst. layers
siltstones, light gray, green.
large ~~orange~~ ~~yellow~~ ~~petrified~~ burrowed 6 1/2'
light gray silt, wavy bed.

Ls, brown-gray irregular 2" ledges, have
little white spheres (?) sand. 1 1/2'
burrows fairly common

Silty
Ls, no tabular, and siltstones, etc.,
light gray 12'



\approx 2 miles NW of

Oilmule

(20)

on Tenn 417, Lewisburg, Tenn, SW of junction

US 431 & Tenn. 50.

(16)

(part of the well)

Upper \rightarrow \downarrow \downarrow

Ls, in west, green, some K-feld. (grs),
leached, no bedding

SB?

Then Ls, calcareous, weathering,
some X-sed.

See notes on
back of page

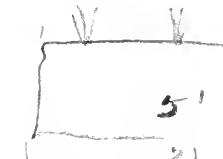
more silty

Ls, gray calc., very fine l. - &
some silt

Ls, see p/g?, thin. 600'

Ls, silty, green, \rightarrow ,
bedded, \downarrow \downarrow \downarrow

Ls, silty & silt



Oppositely H+P sonicated XbaII cleavage best
as T5 endonuclease could easily be inhibited by
at HS

4,2/8- Term 840-a

11

Frontal, Central Valley section - about $1\frac{1}{2}$ sec.
SW of west stop which at H.P.'s V "out" - This part is
repeated in H.P.'s 97 Central Valley section.

Tenn.

Ls. 4 | p



Ls., m, w, some silt stringers near middle and bottom
dark gray, black chert nodules in lower part.

Bentonic? 2" --
measured at bottom, as at 10'



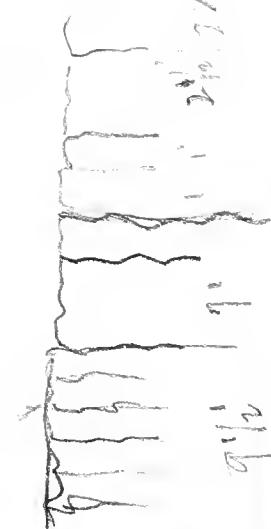
20/10

Aug 30th 1911 2-3" L.

L.S. / East Ordinance

Dear Sir,
I am enclosing herewith my bill, which

Coll. 6-2-98-A Morph. and life history notes
Gobies



Xe

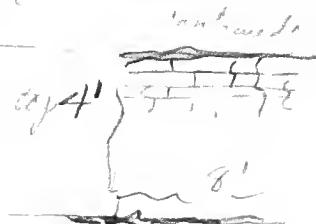
at

6/29/98 Stop 2 H+P's "CV" section, On TN840

(18)

about 0.9 miles SSW of Cuttsburg 8' thick
sandy, silty ls. - 2'

Ls. arenian & ls. w. well bedded at top 4'
m/w ls. 8'



ls. as before

ls. massive ls., sand-felt structures,
internal w. disrupts, lk w. not true

Calcareous

arenaceous

ls. nodular m/w, silty bands,

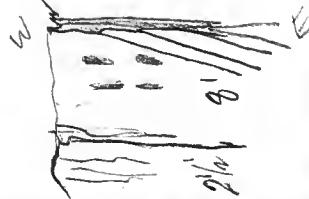
many lt gray, horizontal strat. strata (in)
in upper part. broken w. l. lines across
lk upper surface.



1st salt-bearing

ls. hybrid fine arenaceous p/f, frag. fossil
clasts in lower part p/f, 2-4" thick,
interbedded w. clayey silty ls.
pink gray

ls. brownish p/w/m stones, lk clast rich
pink gray



ls., w/p, silty ls.



6-2-98 - Stop 2 continued

LS laterite

LS, massive breccia w/

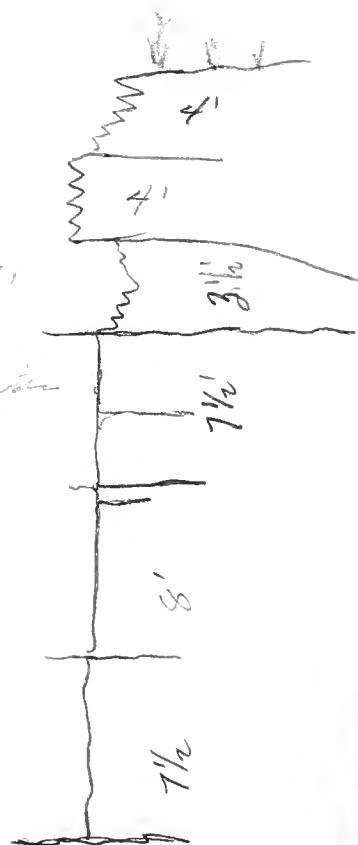
LS, well sorted dolomite, a few, 80 mm size,

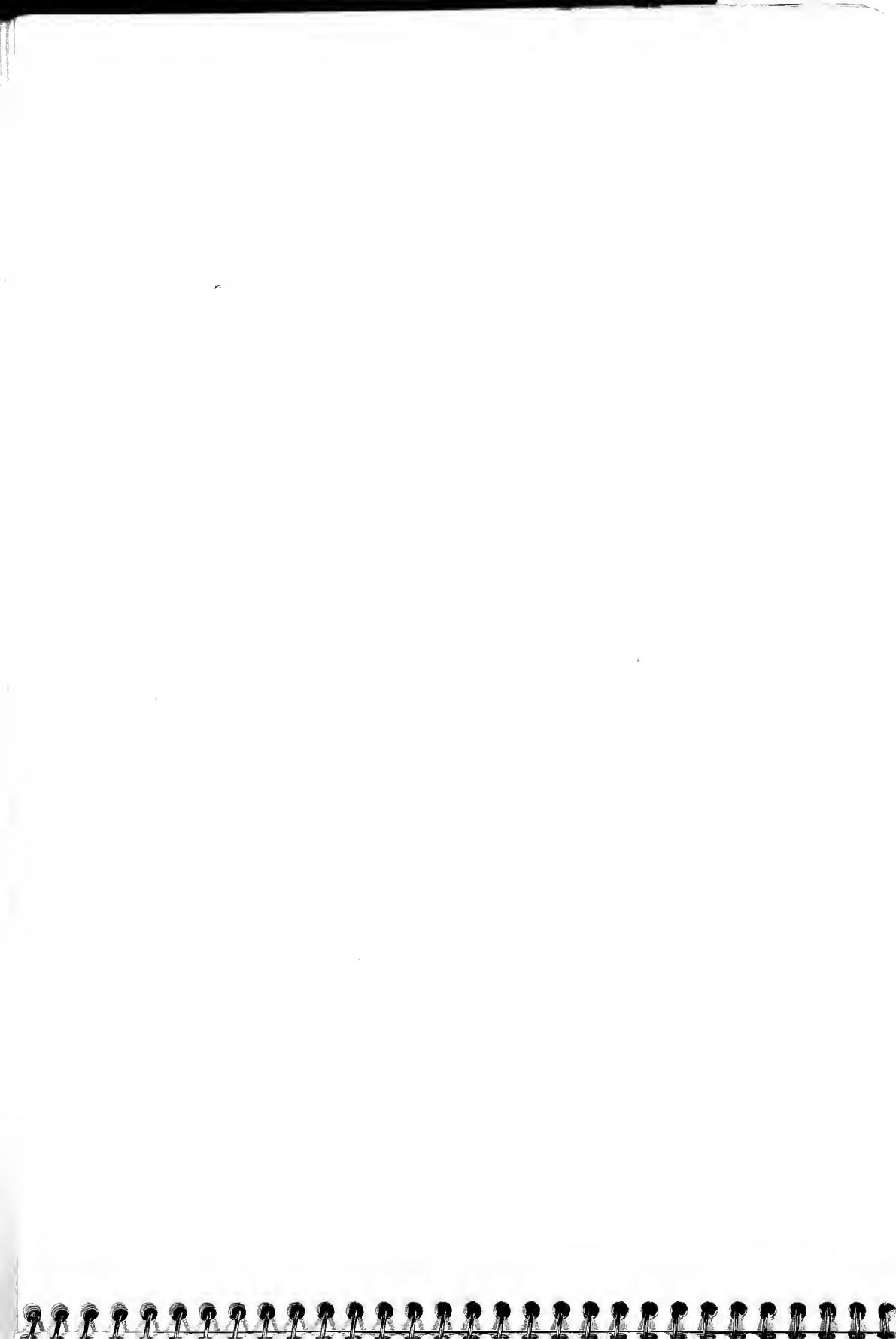
$$SB \frac{M_3}{M_2} \text{ of P+H 97.} \rightarrow$$

LS, massive, w/m w/ heterofl. of dolomite
and dol sand (thin lenses)

(H+P97 calc., these 3"beds" peculiar
grainstones!)

more
light gray
thin bed
felt





6-2 78 Sig 3 Lascassas, H+P local.

- (19) Road cut on TN 96 ^(northeast) just west of junction with TN 266
 (This is northeast of Murfreesboro on TN 96) (about ~~8~~^{1/2} miles)
 (opposite gas station).

Photo C67 made Jan 1974

Ls., w/ few sand/ sandy grit.

Ls., sandstone below with more sandy ls.
 - all fine

Ls., pinkish brown, chert nodules mostly
 (over part)

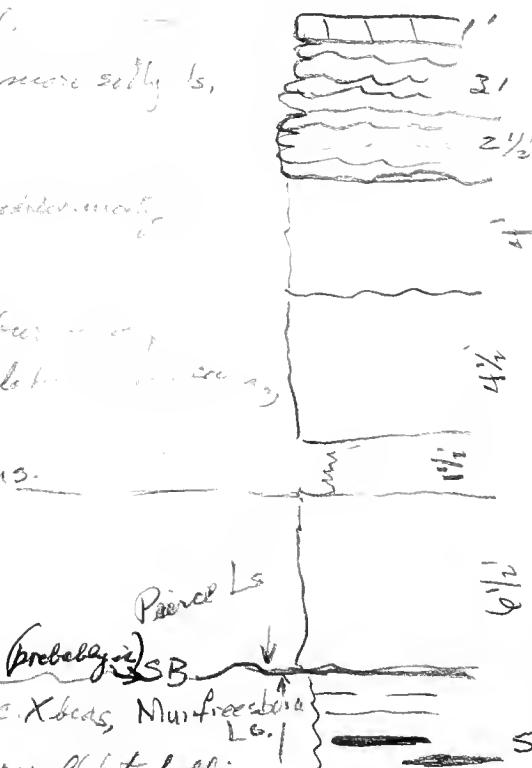
Ls., w/ some dolomite beds -
 bl chert nodules 3"-5", tabular - co. -

Siltstone, w/ many ls, silty ms.

Ls., ms, base -

H+P97 call this a SB

Siltstone/calc., w/ fine Calc. Xbeds, Murfreesboro
 Ls. /
 lens of bl chert 3' long parallel to bedding





[6-3-98 through 6-5-98; car repair]

25

6/6/98 = 1/2 mile west, D... 3

20 - 1 point, and 0.5% D

20

IS in edge. over w. waves. filled with. rags. —
the rice wavy, beaten, sup-ped by seeds & rice

LS, w, and p

$\frac{2}{3} - \frac{3}{6}$ for:

$L_5, M_1, \dots, m_5,$

L.S., 1933, 1, 11. - *Prædictio*.
1. *Prædictio*.

L5, 1 week later - most mites dead
so far 1" from hatching

L.S.

2-3" tall; $\frac{1}{4}$ " green stalky stolons; broken

43 ad 1

↳ words w/ a sentence file in.

22282

三



6-6-98

U.S. '25' at triple bend

(24)

West side of creek. Section illustrated
is from creek up to road cut

(21)

2 photos - 1 of & 2 in ch cut incl. unconformity

Collection 6-6-98-A ^{10' bridge} + 45' thick + 5' + 10' + 5' + 10' + 5'

Ls. calc. p/f, & intercal. small p/g bands, and
smallest horizontal 3'-5' banding

2 1/2

Ls. in bedrock ably with thin dolomitic streaks

Fossil d. recently abt. 3-4' thick
bedded fine abt. a centimeter
in size with some

Ls., somewhat coarse, but more fibrous.

- mostly large ostracoclasts & forams

- Calc. fossil occurs in most beds, very few

12

Ls. mudst w/ pebbles of rip-up mudstone, some
burrows) burrowed mudst

31

21

1 1/2

Ls. coarse calc. with pebbles, grain 5-6" + sand at base
+ purple layer from bed below

SB

Ls. burrowed sandst, 3"-4" beds,

5 1/2

Ls. burrowed w/ my - 1' ledges

10

Crust



6/6/98

(22) Carson Fork locality. Road cut on
just east of Cannon Co. line (27)
both sides of road

100' west

3 Photos.

(Overlapping photos)

51' 52' 53'



Ls. to -



Fir + step-bars
Ls. + more massive full - - -
massy mts, more ls. below - - -



more ls. below - - -



Ls, lt gray, massy, broken & full with darker,
v.f. mudstone inter. stony,



Siltst, lt gray, (more than) 3"-8" bed - thin & t.



Ls. muddy, thin, v. silt & brownish 1'-6" cm.



massy & mud calcareous (P), 2" & 6" laminated beds



Ls, fine-grained, ps, 2-3" s. l. t.



Ls, ps, so a soft, pale - - - - - , becoming
wavy, 1"-2" reg. - - -





6/6/98

(28)

Stiles - 2007





(29)

1/6/98 Hollister locality, 01-08-1997, p. 257
 M4 + M5 part of section (23)
 On Rutherford Co line

Ls. m, burrowed, well " + reg.
 " fine " /9?

burrowed m/s, nice m/fu " "
 - finely

dark, very good
 " " 42" " "
 " and " grayish

2 photos

burrowed s

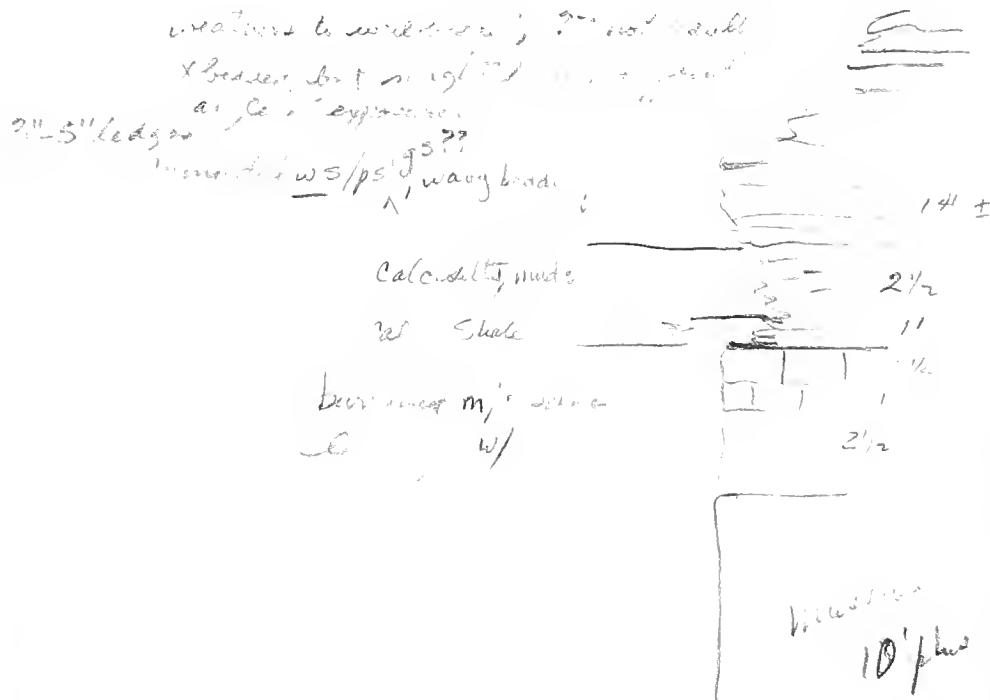
X field i park
 burrowed m/s

Ls., burrowed m/s





6/6/98 (30)
 24 Old Woodbury Pike / Cripple Creek Rd
 West end of Readystile Rd T-junction
 with US 70S.
 Photo above sits on p. 29
 (lunch stop)





6/16/98

Mile post 4

31

25 W 70 S ± 4 miles west of Woodbury
Photo - *Thrinaxodon*

25

Photo - 11/11/19

26

11870 S 4½ miles west of Woodbury

[+ Photo to side]

act)

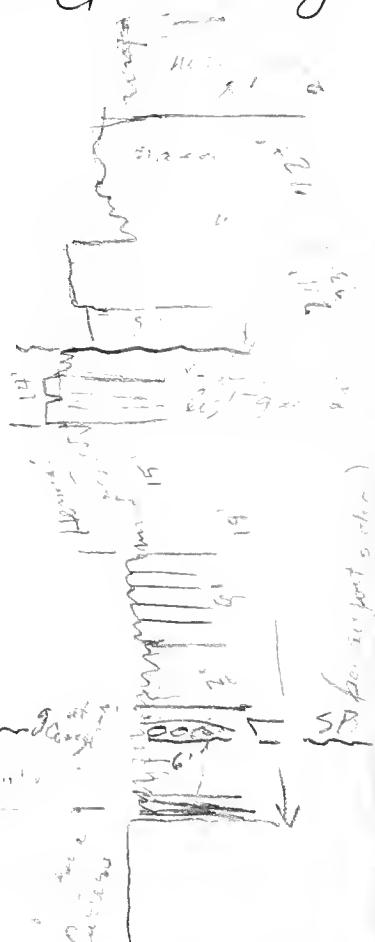
Archaeological
Survey of India

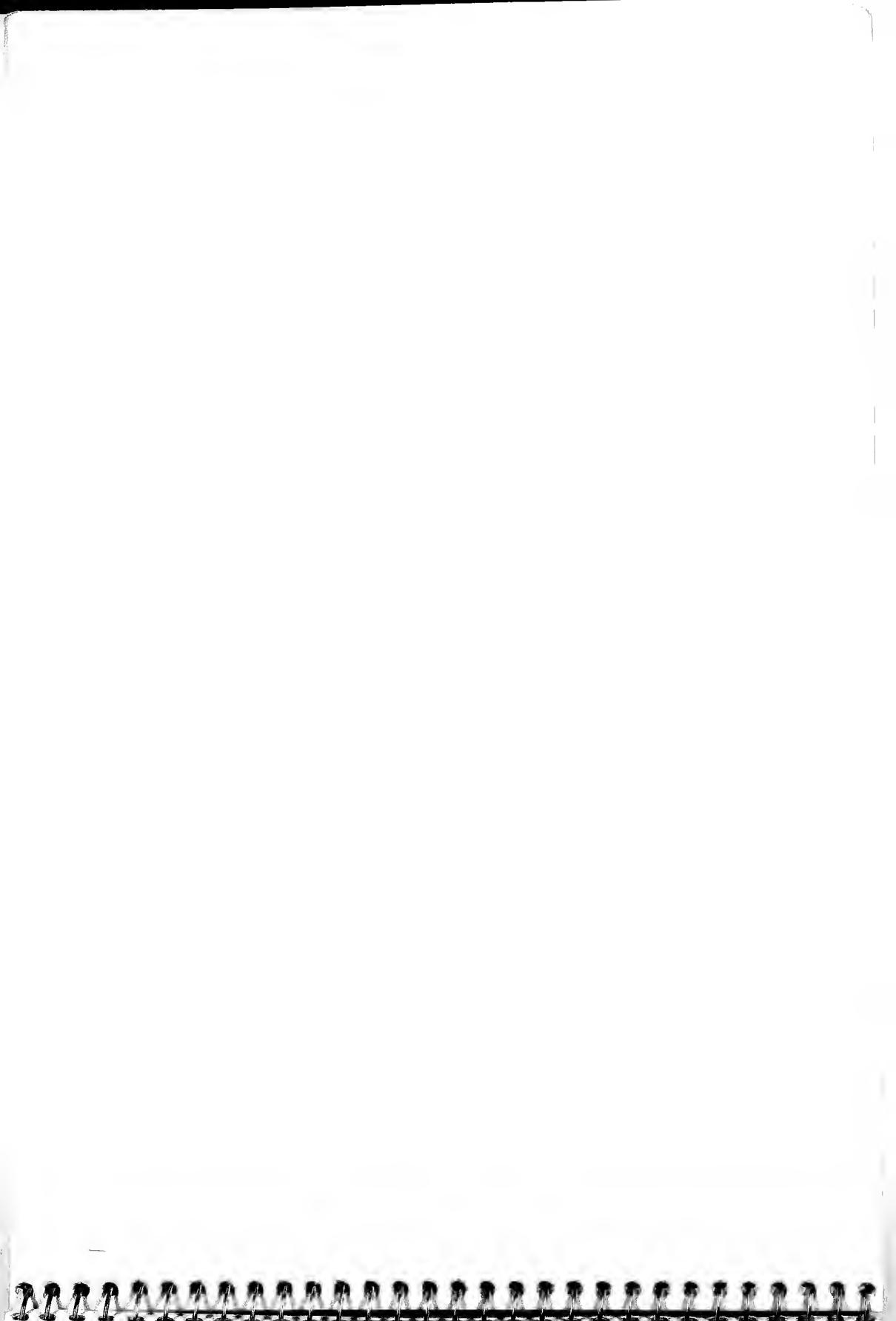
Photo 6

116

also contains barite +
LS, carbonated with many white massive pieces,
sulfatite veins,
pinkish streaked at base

forward work





(32)

6/6/98

Snow Hill on US 70 near Dovelltown

Dixy Cr Rd → Old Snow Hill Rd
Off US 70 about $\frac{1}{2}$ mi east of
Dowelltown. Old Snow Hill Road is
part of the old abandoned highway.
It curves around hill slope; is
overgrown. It enters the "new" US 70
at 2 places; 1 at the bottom of hill
& the other at the top of the hill

See p. 31. We have ~~4 photos~~ - need
to locate field location
CR thinks ~~that it was~~ before
Snow Hill (Paints have been
labelled as pre-27)



(33)

6/6/98 H.A.P 1997, Bluff Creek locality
 ② 1A on Tern. 53, 2 miles north of I-40 -

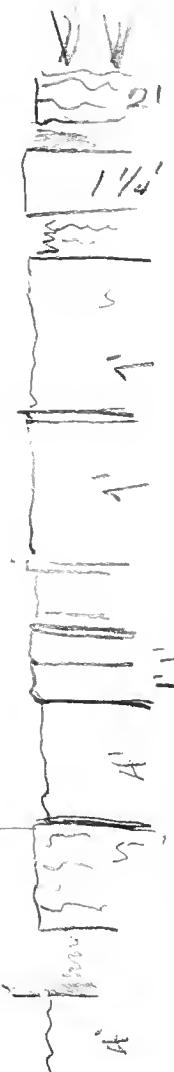
5 or 6 photos.

(New road cuts - v. impressive high cuts)

Alt weathered sandy soil -

M. " " 4" ±

8"-12"



lt. brown

Lg. ms/w, lenses - wgs/pss
 Not much weathering

gray shale

Darker - - -

15.

Golds

1 photo - drift line
 2 photos - drift line

1 photo - Drift



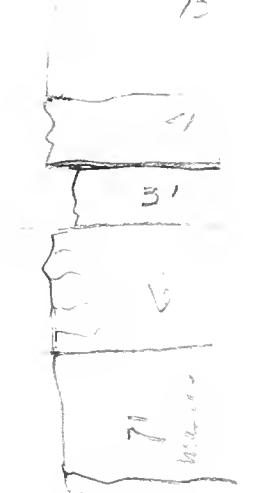
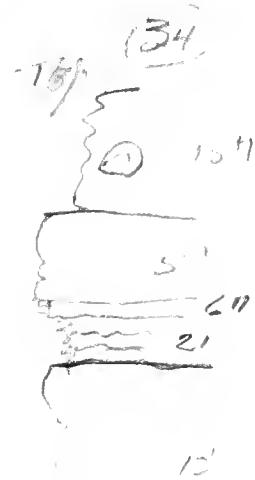
Tanglewood
21B (21B) 6/6/98

PS/PS and WS 6"-2" beds
ripple bottom

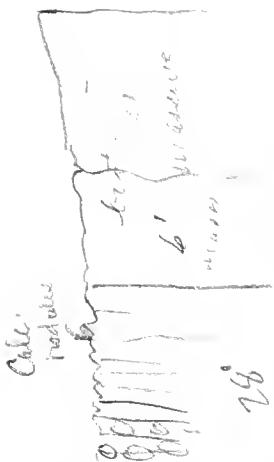
PS
WS
thin bedded ps. & wavy ps.
medium gr.

10" thick, pasty
L. fine sand. & s. calcareous
WS/PS ? flow fac?

down to wavy bed & wackestone
thin, thin gray



10'



Lower 8' has much calcarous bed - page 30
X bedded to ESE,

see page 30



(30)

Silty shale - m. ls.

bedded - very silty

is well sorted

interc.

angular

6"

Siltstone - bedded - fine

sh.

15'

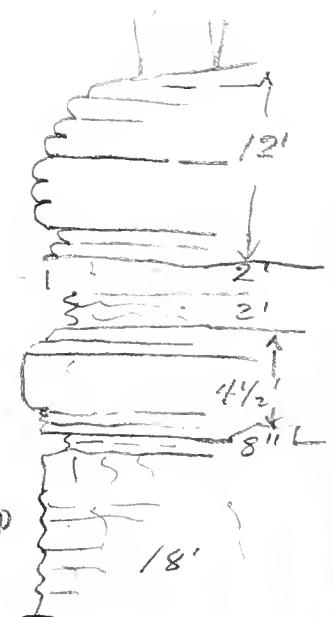
top

well bedded w/p

m/w

lt gray, silty bed

w/p, sand & silt interc. at top





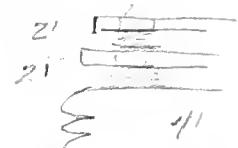
6/7/98 - "motel" photo - Hermitage Fm, TN (36)
6/7/98 Glacial, 1st H.P. 13.7, p. 2.2 ± 2.1

28

holes on the set.



S. 62 6'

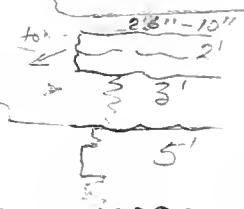


1' FeO₂ dano

X-Contest Case Number 38

This bed the ~~then~~^{bed to} is "3 or less to west" according to w/p
Visiting, written date of this bed was 1935 & visited

more calcareous pl., 1' beds - wedges in?
channels of calcarenous



Srotic. St. & Call. Sot. & stanic, /
bellazecates p!



7

About 14' long. in iron box

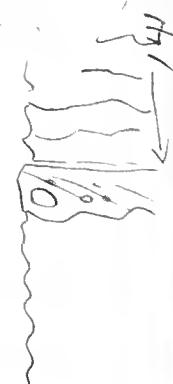
6th-1st refreshes supplies -

1

2" all from top, redish

"to f' to . . .

卷之三





(37)

6/4/98

(28B) Photo higher on hill - next outcrop
 toward Gliddece Jackson County (near west side - county)

Orangeish brown weathering
 as "P"



3.0, 1.5, 1.5, 1.5 ft, V. 4 - A + reale.

clay, silt

dk shaly silt





6/7/98

(38)

29 Big Bottom ^{Tennessee} Holland & Patzschwesky 1991
photo near center of shallow syncline
on TN 53, northeast of Gainesboro.



(39)

6/7/98.

30) Mt. Celina. East of Celina and

0.5 miles E of Celina, on TN 53

1 pt.
Apt
Ravine1st
2nd
3rd
4th

loc.

Molaro calcareous

Pkg interspersed with fine chippings
large yellow mts., soft, soft deformed
at base.

calc shist w/ 10% s.s. ---

Mollie
5'

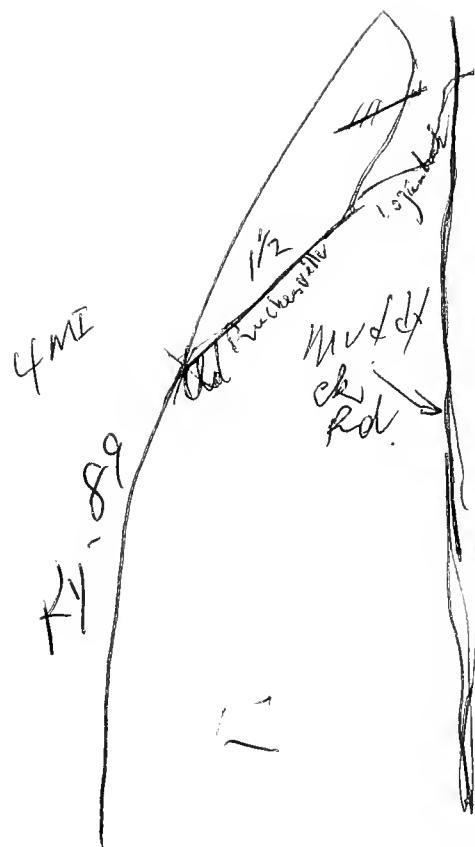
Lg, coarse w/ Pkg - Congl. → 2k'
with the sharp interbeds



140



(14)



(42)

6/8/98 Logan Lick Road

31) Left Georgetown motel (at exit 69) + to Interstate 75 S to Exit 96 to Winchester; from Winchester we went 4 miles on Ky 89 + met a γ in the road; took Olducksville Rd to next γ where we took Logan Lick Rd; wound down + around & // to railroad track encountered a ca 10 ft section - covered w. vegetation. Coarse-grained crinoidal packstone / grainstone; beds are channelled 4'-5' across + 8" deep; some general x-bedding on this kind of scale.

Higher beds - calcarous, sandy laminated; some beds with some brachs. At RR track beyond end exposure

Coll.

6/8/98 A. Clays Ferry Fm. - see diagram on page 35 of Meek & Greene, USGS Bull 1224B
3 sep in section

(Had car checked for leaking?
differential oil).



(43)

6/9/98 - Delaplane loc. 171, 178-, PP768 (B-E')

(32) Collection 6/9/98-A - lower part Millersburg Nbr.
 S.E. side of road cut between Toyoto Plant gates
 Ky 620, (534 1/4)
 Calcarenous s.s., med to + me, 2 lenses
 Organolith, sp. (Collect. 6/9/98-C)

Silt, fine, g. - soft

cut + fill channels 1' - 1 1/2'

water 1' - 2' deep, clear, temp. 68° F. 100° F.

Shaly dol. m.,

Some reworked (g) of bryozoans, brachiopods,
 Gastropods, wavy lenses, with
 1/2" - 2" thick purples

Col. 6/9/98 E.

fines, calcarous sh. - 1/2"

4:30 pm

Did not stop - Shift change at Toyoto Plant
 road cut NW of Toyoto Gate 7, west
 side of road. - mostly laterally wavy bedded
 calcareous P/G; v. little silty shale



(HA)

6/9/98.

Ku620

(33) 18 Photos, road cut S 4 W of Gate 1
of Toyoto Plant
by $\frac{3}{4}$ mile

(Mile 4)

1 S, thin red, very bedded, fossiliferous

- bedded sandstone below

3' - at base & each of the
little bands 2'

2" scale. - thickness on top -



Rd 2906 - more shale in sequence

Ku620

* The outcrops on Rd 2906 were adjacent to large Toyoto ^{plant} & it was all marked "No Parking."



6/10/98.

Returned on Key 460 (75)
to Stop 1.

to Oxford East on Key 620 from Motel -

Inside of 45460, about 100 yards east of junction
with I-75, east of Georgetown.

Ls., calc. off on 2" 8" core

Coll. 6/10/98A

Concentric laminae, irregular wavy

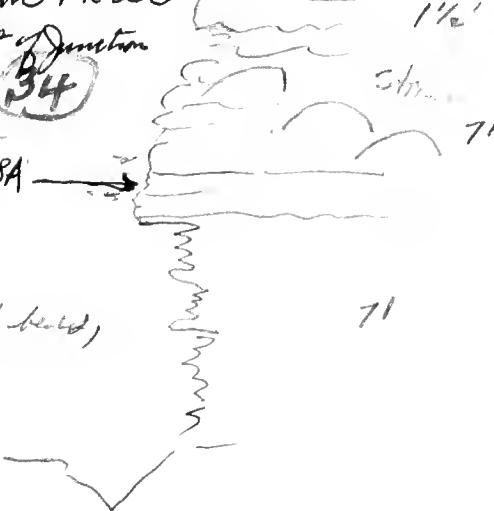
bedding.

Ls. p/g and sections, 2" 4" beds,

7"

notches: ls on west

1 Photo



(^{1/2})
Is this the Stamping Ground Mb of Lexington hs. Large stromatoporoid heads in 2 or 3 beds — 2-3 ft in length. Bay

Coll. 6/10/98A. At base of lower stromat.
bed

See Creasman, E.R. 1973. p.38-39
(tech. of 151 Georgetown, plate 2)



(46)

6/10/98

35 Key 460 in Georgetown
at Georgetown water tower at top of
hill. 1 photo. W. edge of Georgetown

Stop 1.

Ls. med/fine, occasional coarse lenses,
thin salty partings



Ls. v. c. calcarenous, X bedded, + sheet sand,

v. little saltst., g/p

some carbonat. pebbles & some burrows



Ls. med to fine calcarenous, p/g

rippled & large wavy beds with others

saltst. partings



Stop 2 3b

US 460 just beyond Ky 227 intersection
1 photo. Higher in section rel. to stop 1

Ls. lt gray to brownish tan, 3"-6" l. w.
med/coarse calcarenous, wavy bedded, a few
gastropods, almost d. beach



Ls. med/dk gray, 1"-2" beds, salty interbeds,
rip-up clasts of calcarenous, dolomitic,

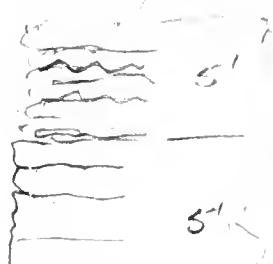




6/10/98. Did Census on N side of McCormall Run
③7 one County Road 1689, \approx 1.2 miles SW of Stamp Ground.
Census at bridge

49

metacoarse
Lo [calcareous, 4"-6" sapple bedding],
2-6" beds,



Ls., brownish gray, calcareous in 8"-2' beds
and/or coarse calcarous, XBedded,

Ls, Calcilithite + fine sandy sandstones,
2' to 6' on 4-6 nipples SB



Siltst., calcarous, and small nodules of
limestone (Calcsiltstones?)



Calcareous, beds and silty calcareous

Irregular bedding seen -





(40)

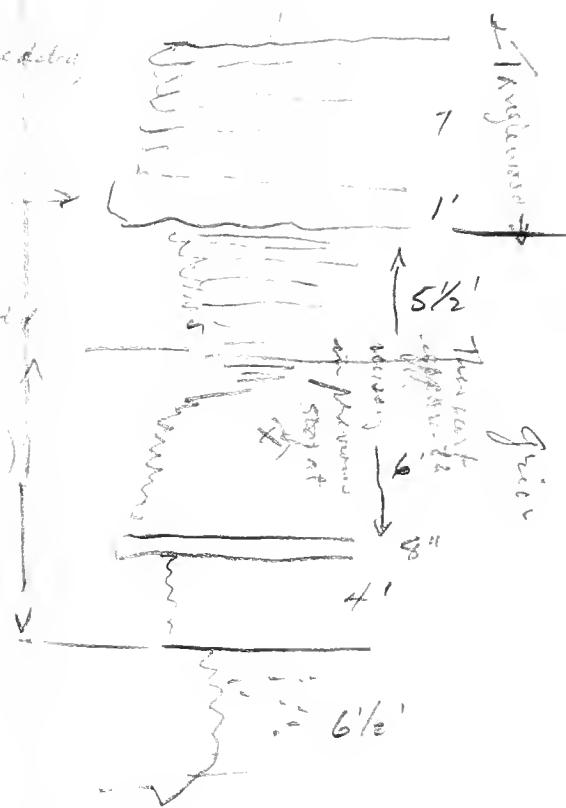
6/10/98 - Stop along Ky 1262, $\frac{1}{2}$ mile southeast of
 38 junction with Ky 1900

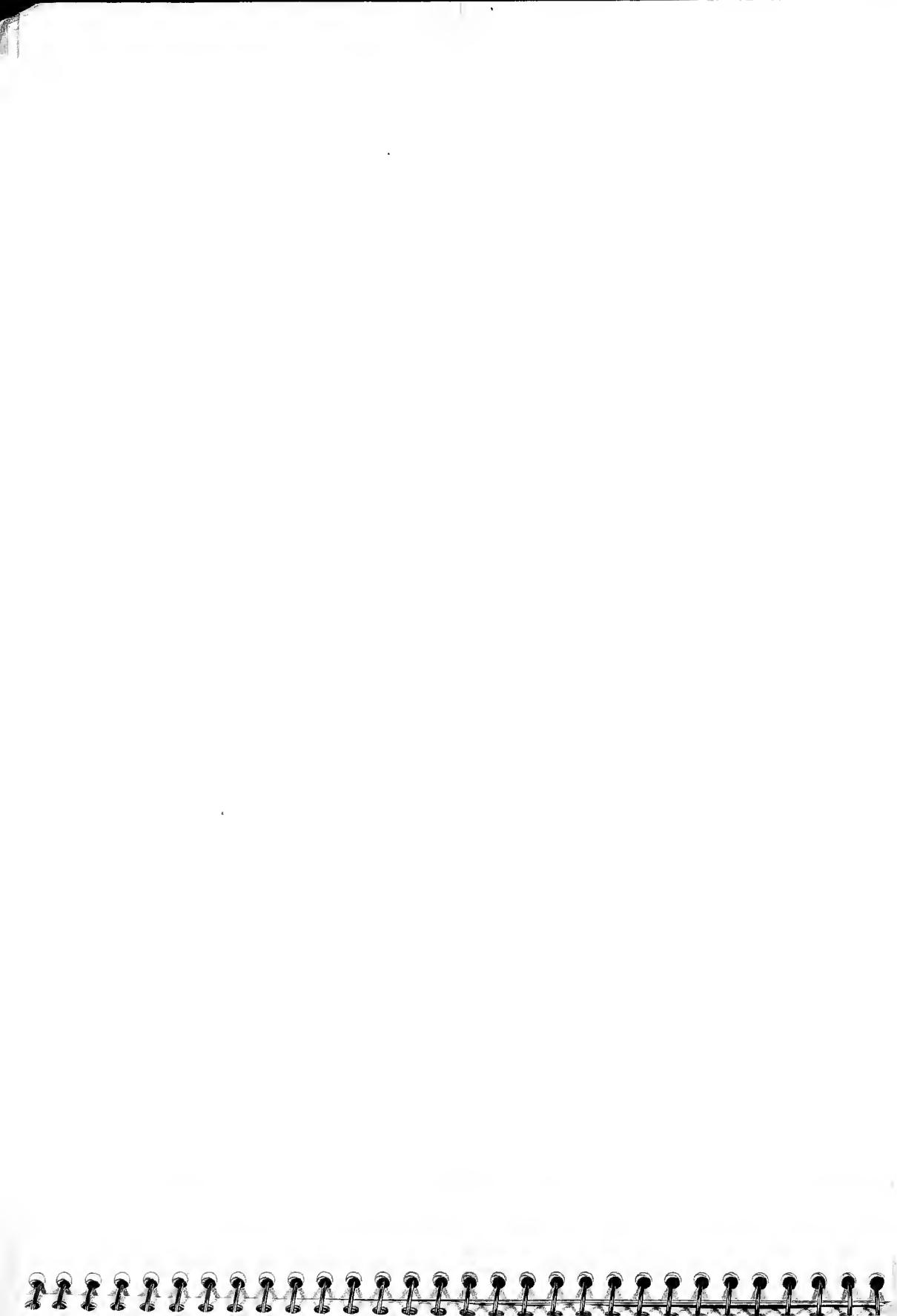
one place

beds to 19) 2-4' wavy bedded

calcareous siltstone interbedded
with silt.

Is wavy bedded calcareous silt?

Calcareous siltstone and
thin siltstone interbedded
Zone C



6/10/98

E, +

(49)

South above Ky 1200 from junction with Ky 1262.
 (Sign reads "Caneo. Ky 3.0 miles")

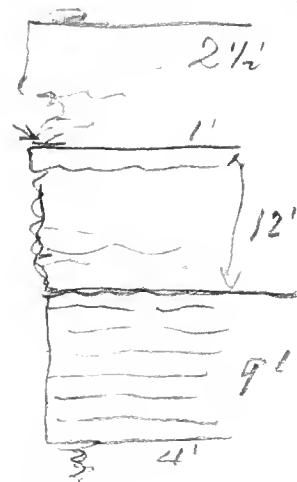
(39)

2" silt. +

Silt and

2 1/2'

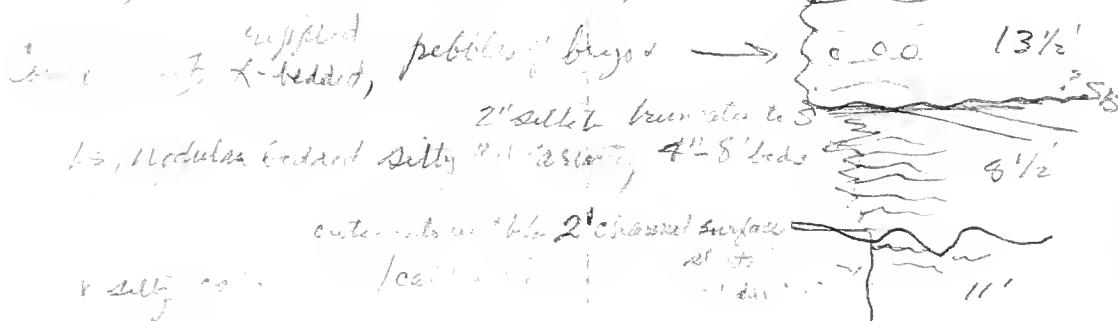
s. 1/2' thin bed
 - Ripple bedded Calcareous (?)



Fine Calcareous, p., salty, 4-6" beds.

Ls. salty Calcareous and saltitic.

Ls., massive coarse 20"-4",



Calcareous





6/10/98

6/18/98 - May 10 0000

(50)

Tan - 1/2"

med) Alkaline upper form
coarse calcarenous, well bedded & fissile

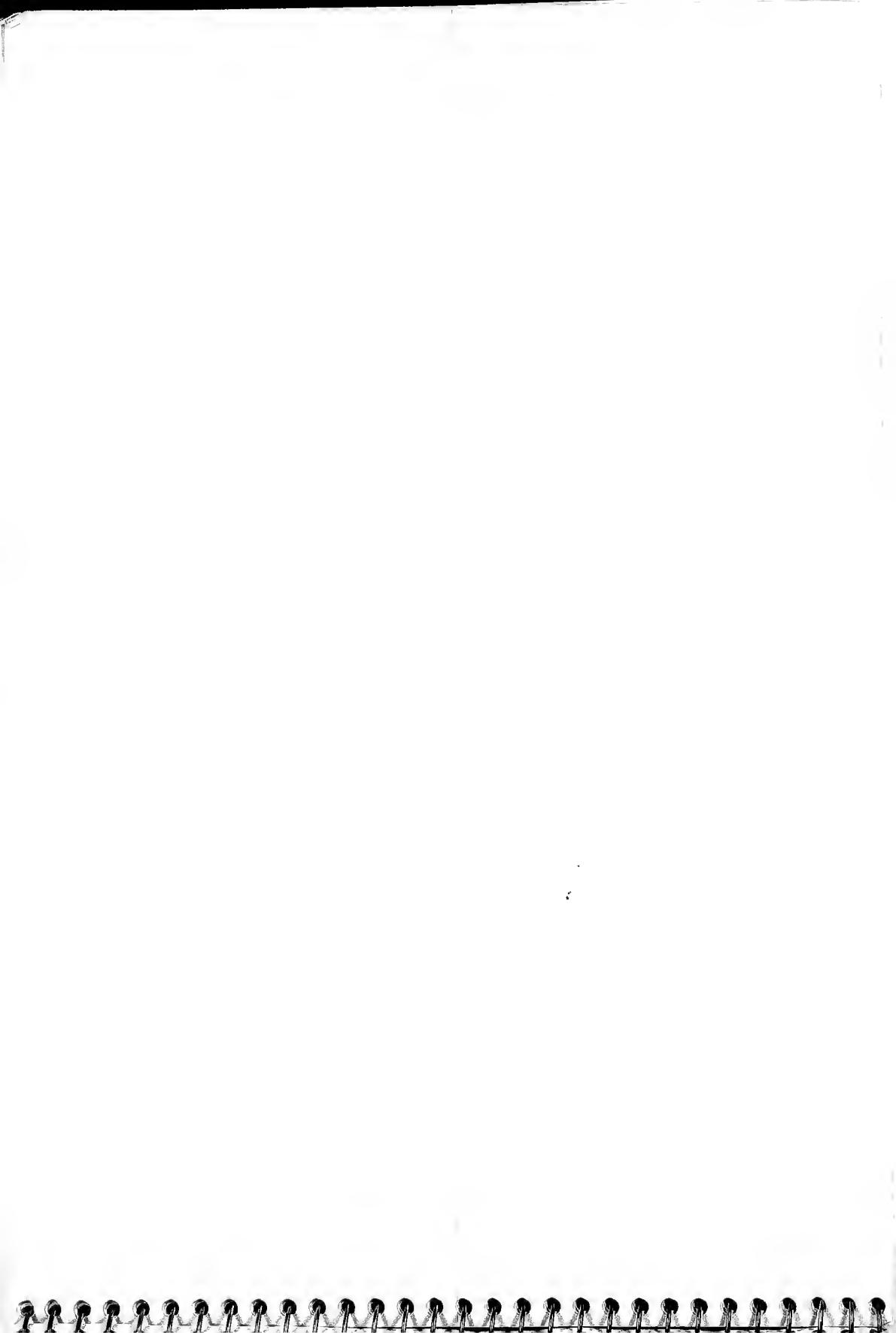
Siltstone - fine-grained

Siltstone interbeds

Calcareous sh. common fossils

SB? (photo) trilobite
fossil

1" Siltstone (concrete)



6/11/98. East of Frankfort near Forks of (51)
Elkhorn

In 1870 he became a member of the Central Organizing Committee.

3. Georgetown Rd. (40)



6-71

L.S., 1960. 6-12

Hold up in here

۱۷

Silene dioica, light blue.
- latifolia.



131

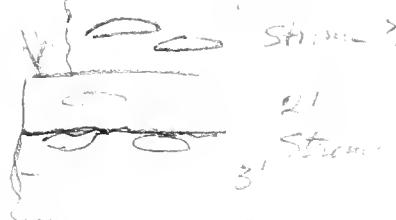
Leopoldina et al., 1985a



Ls. n.s.s., Conf 5/24 - 7. Hg
water at bat. 1

Ls., p. 211. - *gutif*; a.

3. 2. 2. - *gutte*



Ls., San Joaquin



Interest

Photo



6-11-95

52

Frankfort, Ky (western side) just ^{measured} N of front of V
115127 and Ky 1005 41 Top down 



Phe Phenylalanine

for each top/g

Selbst, (will es?) + ~~Calculus~~ ~~calculus~~
and 3/4 ~~as?~~ ~~as~~ ~~as~~ ~~as~~ ~~as~~
~~max to~~

Los, Wentworth, Diego, California, outside
and part of it, very scaly bed.

Sic^h)

Cals. p/b, X beds from top to
base and 10-12' he, red

Hence, we have $\alpha = \beta$ and $\gamma = \delta$.

2-2" grayish blue

M. calculation, p/g ratio increase.

start a list of "no" facilities

pinkish brown rock, "chaotic" & bedded, which may

1" thick grey shale/slate break

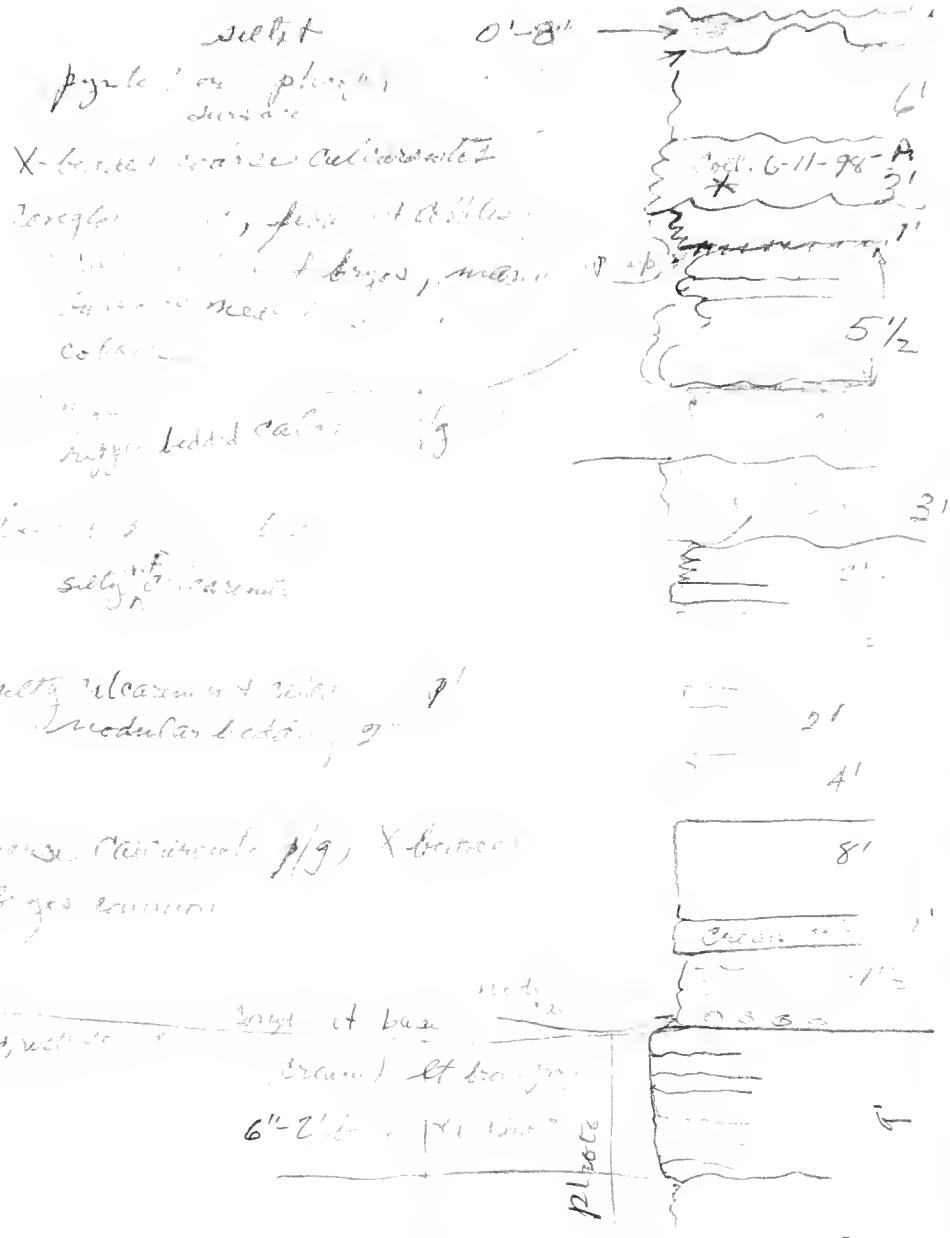




6/11/98 control

(53)

continued from p 53



large 2'5"
calcareous



6/11/98.

(54)

Cont. page 53

121

1.0' - 1.5' - 2.0'

Congl. 11' - 12' - 13' - 14'

15' - 16'

Coarse Calcareous silt

3-6' Calcareous pebbles - 7' with
calcareous silt.

6-8' sandstone - 12' - 13' - 14'

purple stained surface

Calcareous, fine med. sand. 11' - 12' -
13' - 14' silt.

become very dry

conglomerate

gravelly sand.

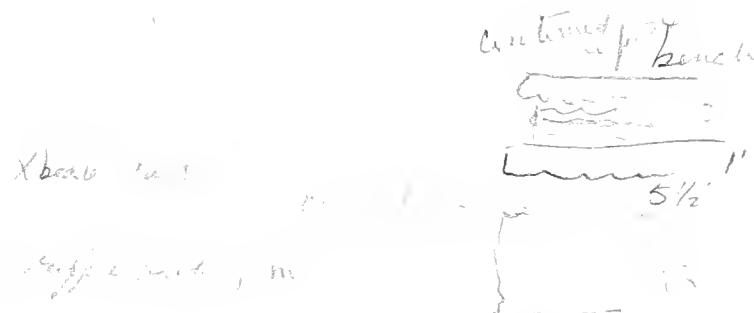
36



6/11/78 - West (55)
side of Kentucky River, south

42. Frankfort on US 421 (Bald Knob Rd), just
soothing fancy interaction with US 60 n. US 127.

2 photos, top part, top and some
cont.



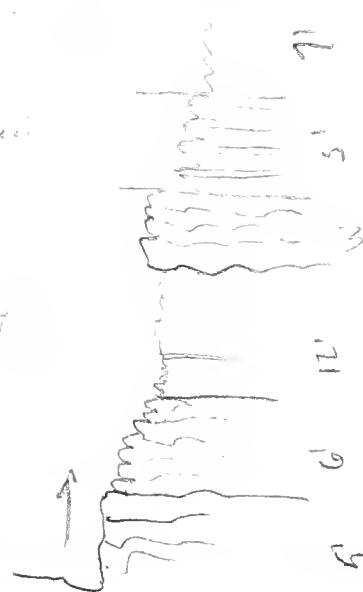
6' - 10' dolomites
lens 2-3' black
alternately salt + dolomit, and thick
calcareous dolomite

rigid, no calcarenous sp.

of dolomite + dolostone with
+ dolty concretions

2-4" dolomites + 2" dolomite

Calcareous marlines wavy bedded





(56)

6/11/98

Fls - chevron-like
trunc. plate p. + 10°
w. c. up to collar.

lens

X

Y

Z

16

P. 220 - ?

5 ft. bed 200'

17

Clay.

?4

Cal. w. sand & silt

18

Ls. sedimentary, silty, sand, pebbles

19

2-3' alternately

20

Mud, silt, some 6"-18"

21

Congl. pebbles sand & silt

22

Calcareous, med/pig, little if any sand

23

many bedding, 6"-1' beds



(57)



6/12/98

(58)

Took I-75 & then I-64 East to Mt. Sterling. Some exposures around 2 Mt. Sterling exits. Photo ~~Exit ramp from I-64 at Mt. Sterling, Exit 110 from I-64.~~ ⁴³ ~~43~~ ⁴³ Post ground

1 Photo - NE side of exit 110 (west bound off ramp).

Silty, - very bedded facies with abundant large blocks., some thicker beds (6"-8") are found with pebbles + silt feeling to - - - Yellow Creek.

(44)

Mt. Sterling, Ky



(45)

6/12/98

(59)

(45) Southbound leg immediately S of bentonite
to S. of P. on I 95 C.

1' to 3' below
interfingering facies, some laminae but lack
'flaser' structures, wavy sediment bands.
1' to 3' beds

14'

0-3" dk gray oyster
concentrations with fossils (mostly bryozoans)
thin, wavy, arenaceous (p) with fossil hash with
bands, slumped features, truncation
face - transported fossils (gastropods)

16



6/12/98
6/18/98

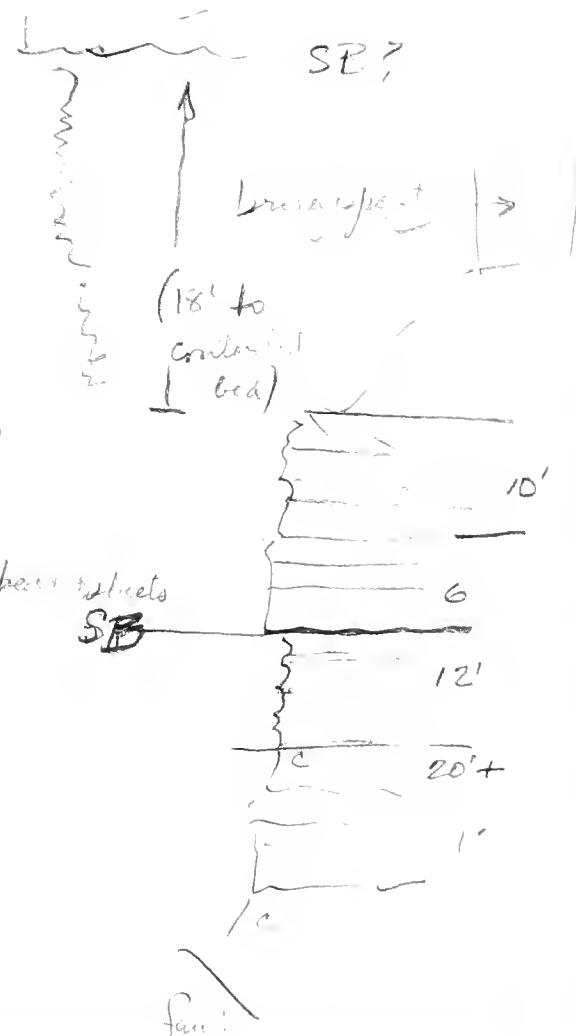
(60)

(45) Road down to Clays Ferry Campground

1 photo looking down on type Clays Ferry, gravel
siltstone at top, (see wire screen on Clay Ferry in
I-75 road cut.) Photo from lookout point.

Took our road down to river, - about 20' below
there is a 2-2 $\frac{1}{2}$ ' bed of cinders and sand (I-75
(1 photo on reverse).

2-3" calcareous
4-6" clayey siltstones.



Silt calc. 6' thick



KY 37, 19

(47)

6/13/98 - Fossils - 3rd floor ... + 10' ~~2'~~

= Falkland

dk gla

20

100

concret.

20

20

100

SB?

5

48 KY {
49 110S}

Vuggy - reflect laminated yellow

just S of
Crawford
Hill

Widening - recessional
at base ... SB

Laminated, dark, silty, lt green

20

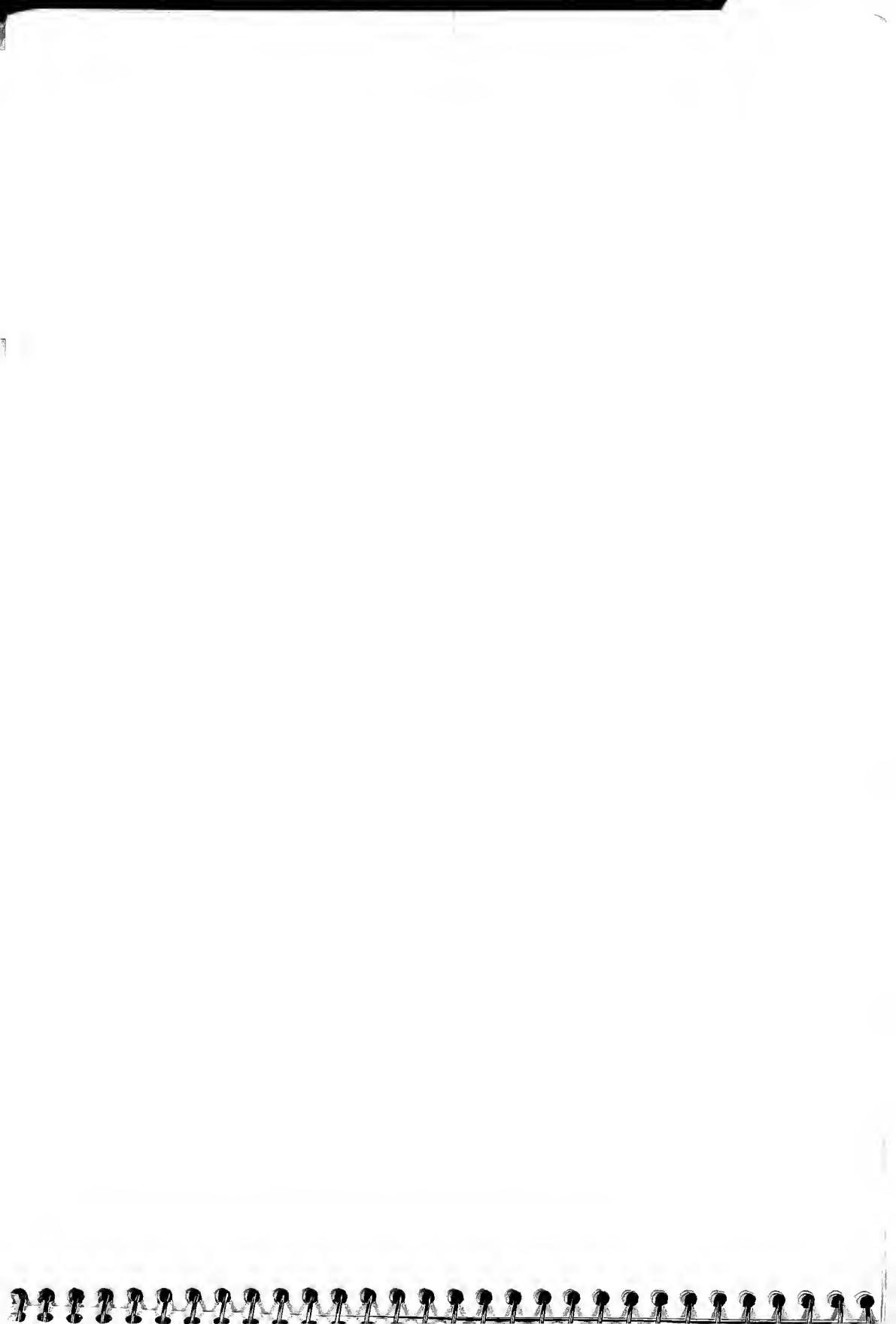
20

100

Lodges with
Silty laminae

20

20



on KY 337, just N of Bradfordville and junction with KY 49
at the "Nelsons" 49

Powder house

Bradfordville

2 1/2'

Silt soil

25'

Roadbed

20'

silt soil

11'

at 9' 6"

5'

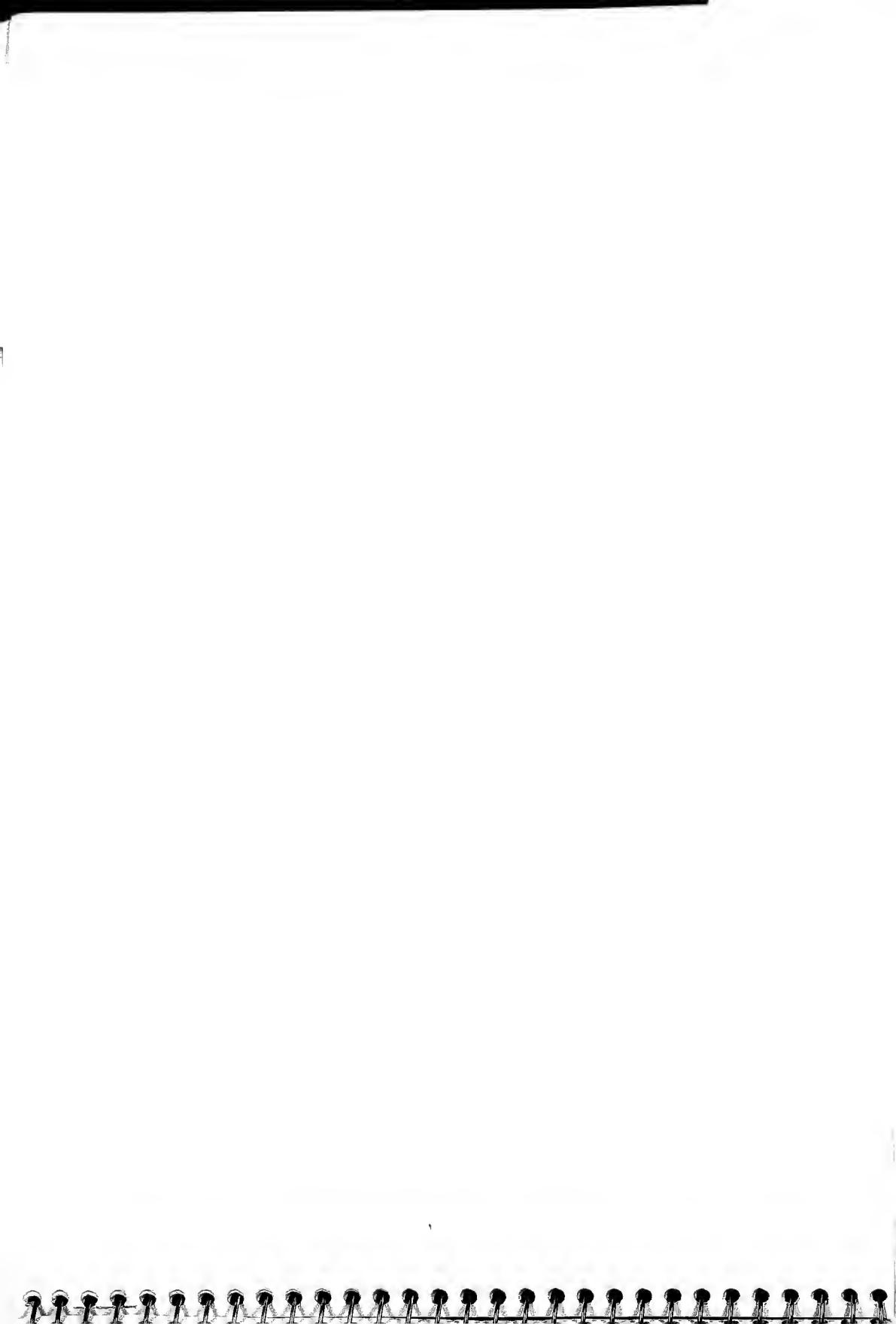
8"

8'

Terrill Albr.

St. 6"

1 photo



Plot

KY

(6.3)

6/13/68 - ~~Tat~~ 55 ~ 1 mile north of Airport Road turnoff
Hebron/Springfield airport (50)

road cut made in 60' + 0'



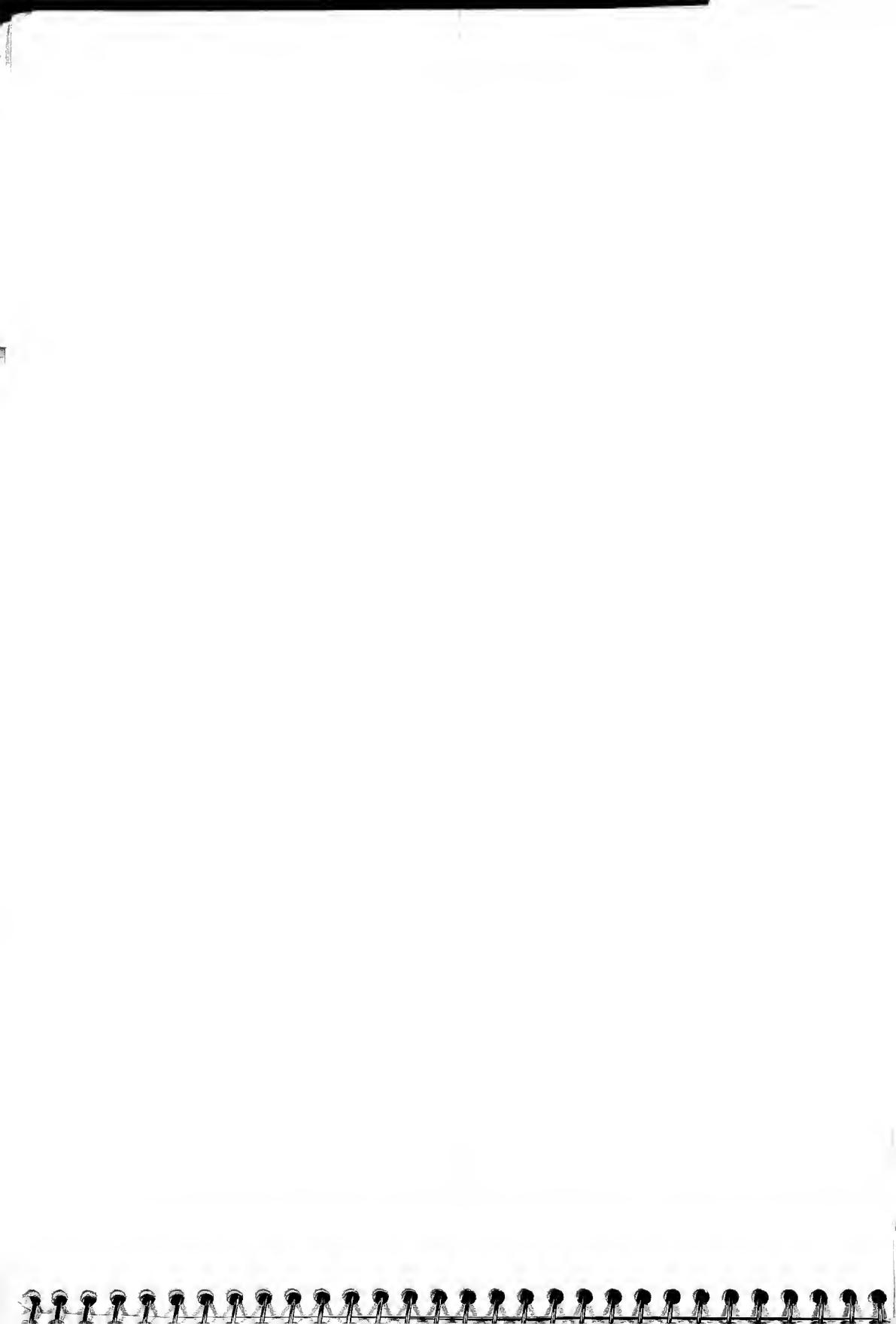
Locality -

Silty silty silt, 1'-1 1/2' beds, with
silty carbon streaks, wavy
mudcracks



Turn to Springfield - 51 Key 528.

Plot section on first cut -



18

Bridge - about 3/4 mile west of bridge 10

(52)

14

2-4" beds of sandstone
To Kalkbank - 1' beds, sheet beds

Cont next p

lt gray-green limestone

7'

- photo

Sheet bed - calc. sand

8'



sh. stone, calc. up to

11'

sh. stone, calc. up to

7'

sh. limestone

2 1/2"

SF

- exp. base, salty

15

1-6"

1-5"

Photo

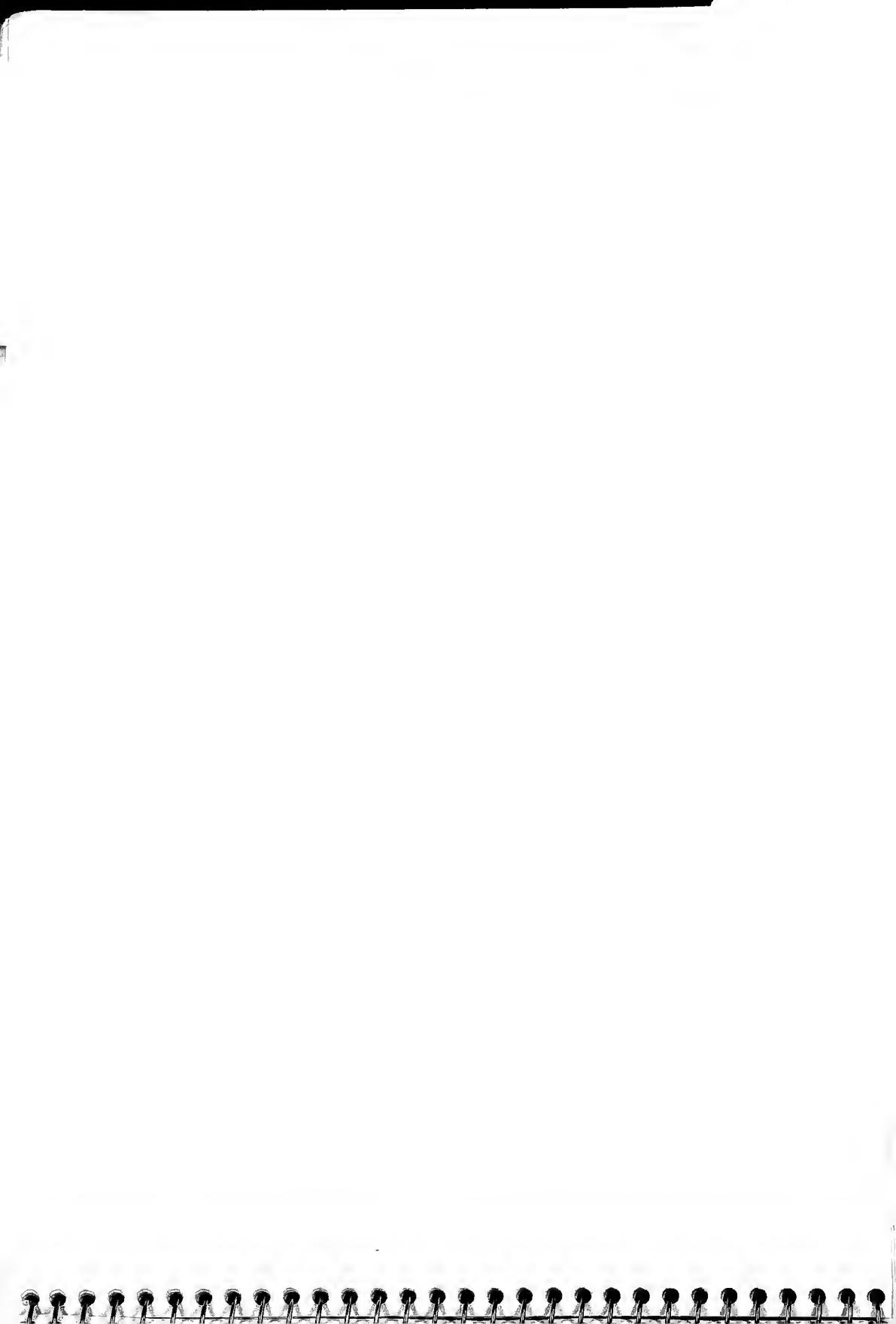
Salty calc. Xbedded,
Exp. fossil frags common

TST

100 ft

1 ft, lt gray weather.

28



15

(contd.)

1' m

Dolostone Xbedded, wavy,
lowest bed (1'?) sand + ^{anhydrite} 6' m.
Siltstone, massive.



Picks

+ dol., dolomitic, sandy, burrows

14

Stems and
Colonial coral bed (6'?) 2½' t.s. with
irregular dolomit.



Picks

Coral - dol. + dol. 2'

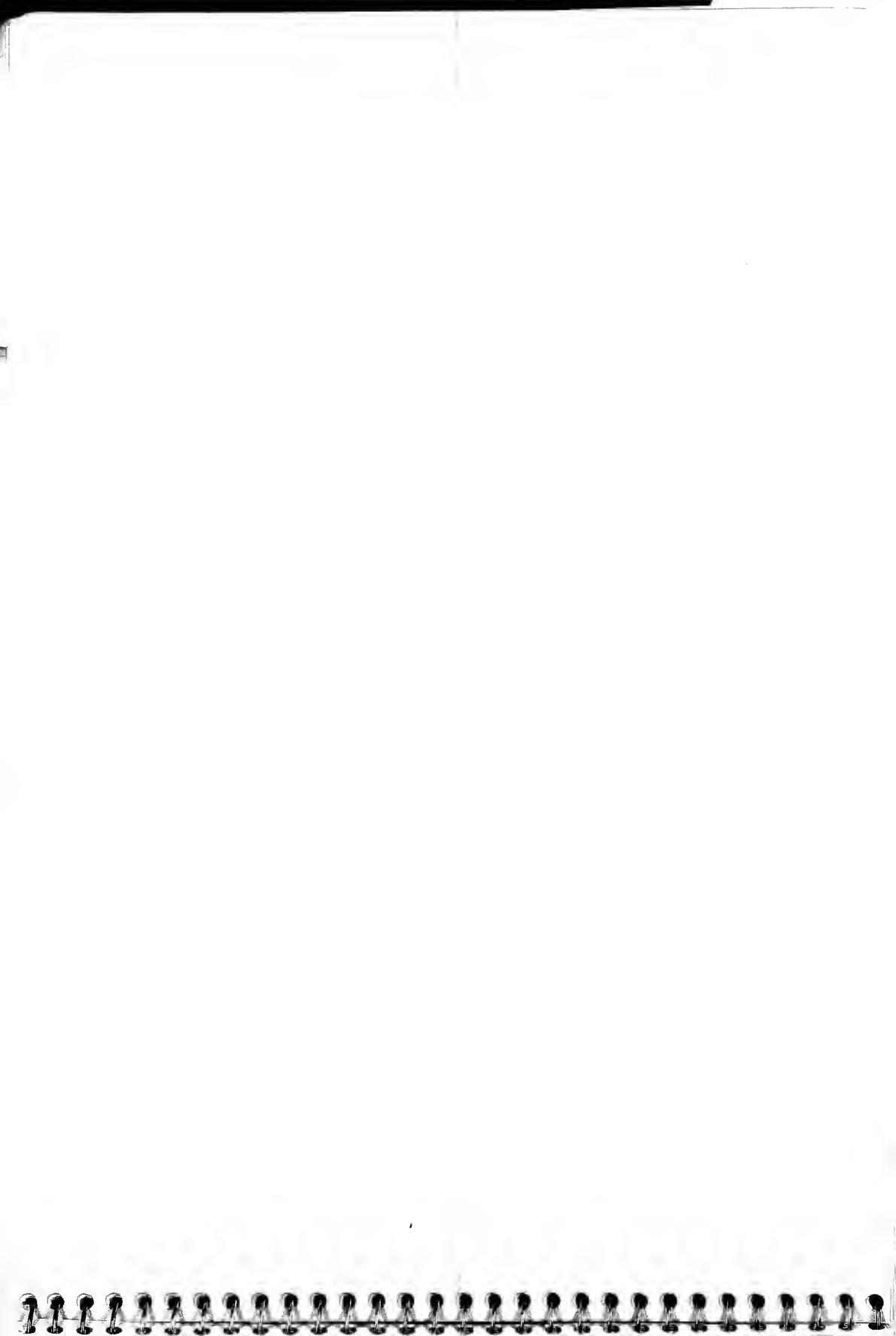
br. 1' 2"

Ripple bed - dol. 2' - 3' 2"



2½' dolomitic dolomitic dol. 2"

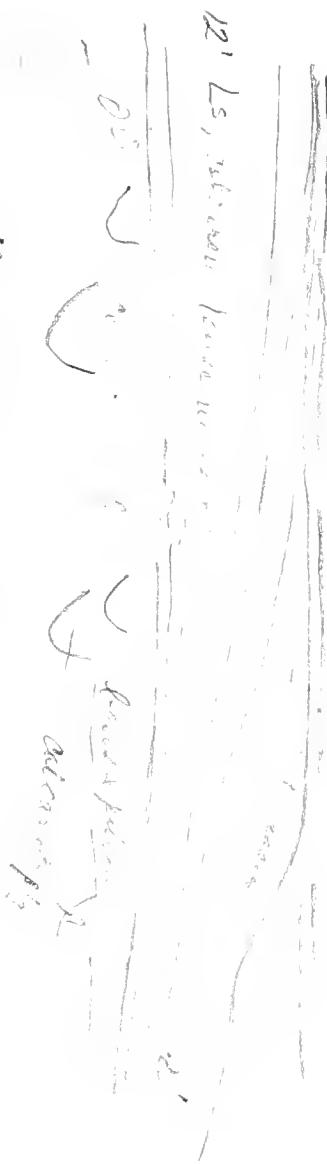
lt. grayish green siltstone dol. 2"

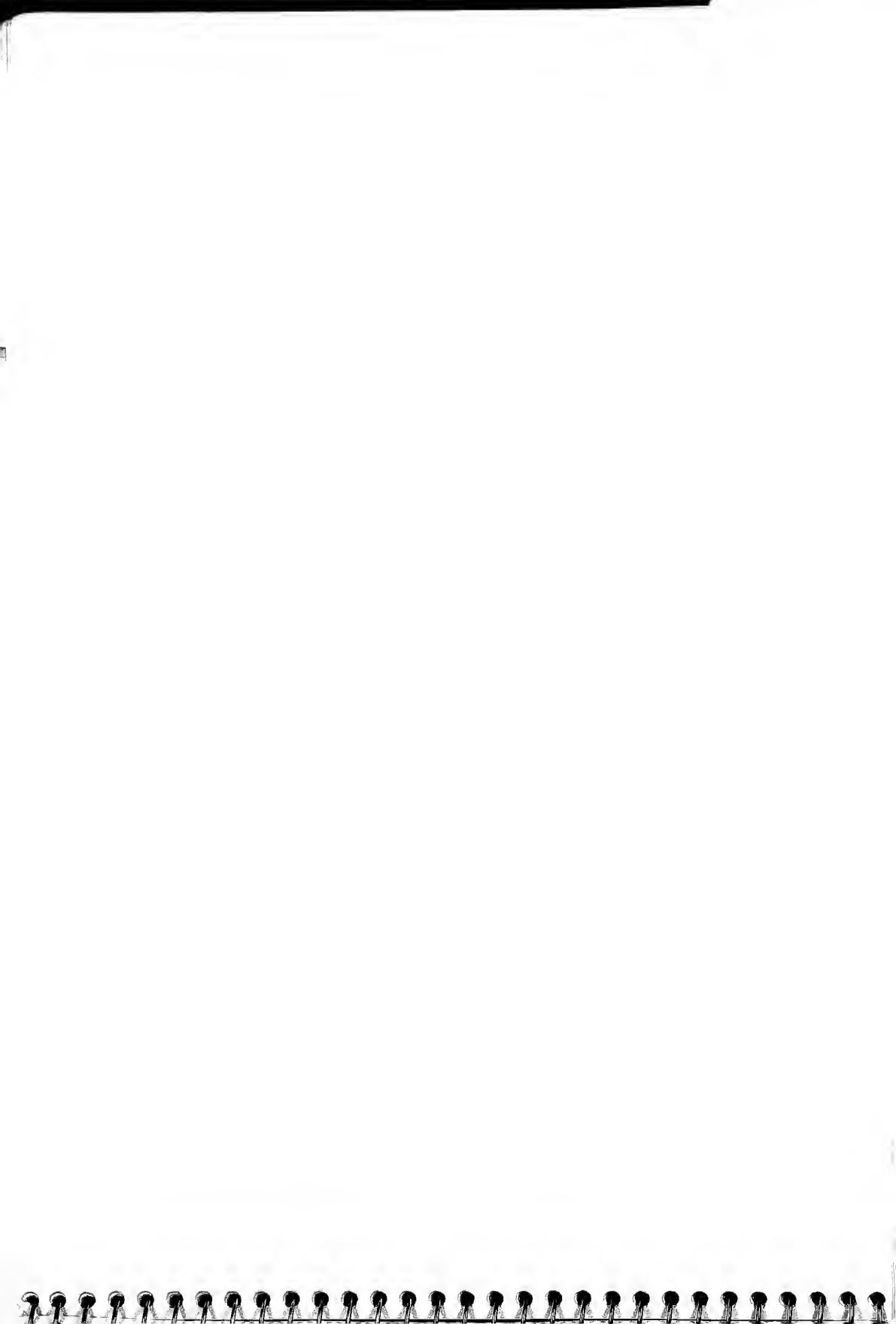


Took US 62 at Toyoto Plant
to Cynthiana

(53)

Saw 6th off from town





6/14/98. Scouted on US 36 northwest of (67)
Guthiana for section in Prof Paper 768
plate 3. Took Ky 1743 off US 36 & circled
round back to US 36—occasional stumps
partly overgrown but nothing else.

Took US 27 north to Falmouth. Lunched
on Curry Road "green island." At one
time, there may have been a sequence
of cuts which showed the section, but
there are none now.

We'd stopped
on remnant of old highway



(68)

6/14/98 Mayfield, Ky - Junction Ky 9 & Ky 11,
Roadcuts on Ky 11 north of junction (54)

Photo (6, 100)

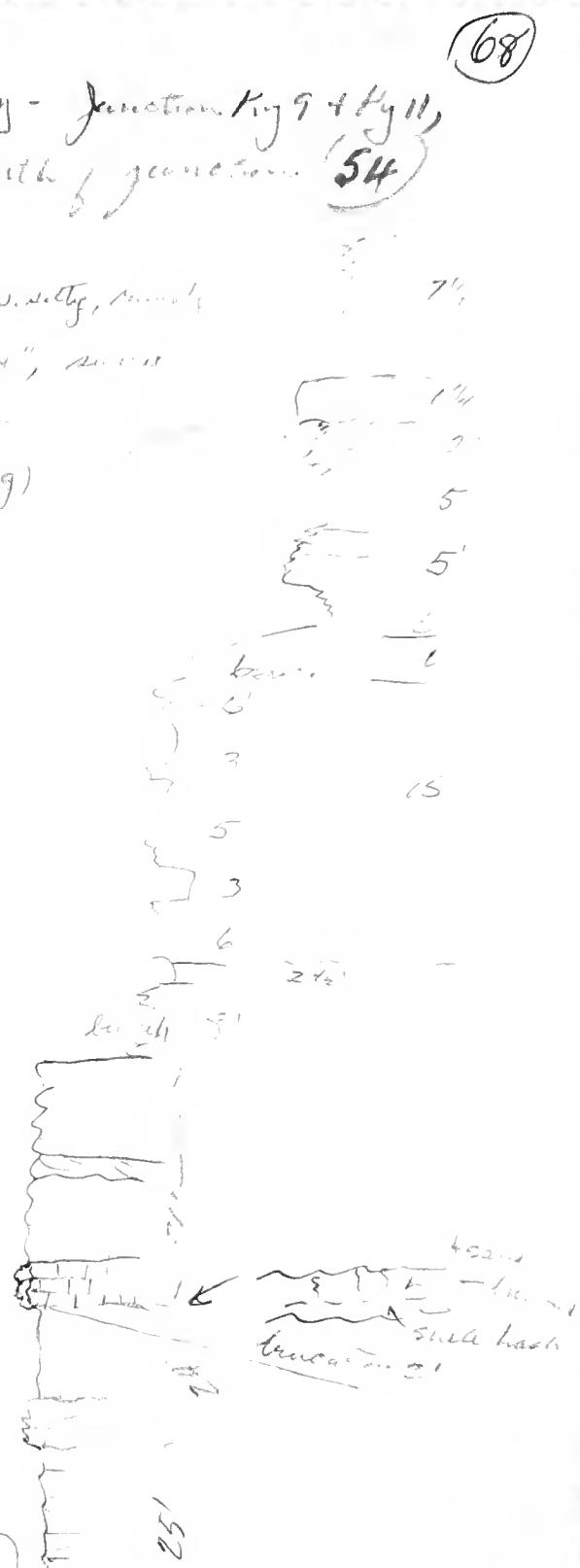
For miles = 10, width, mm's
= 100, poorly "bedded", sand
or silt, gray -
no cal - (g)
major bedded g/p

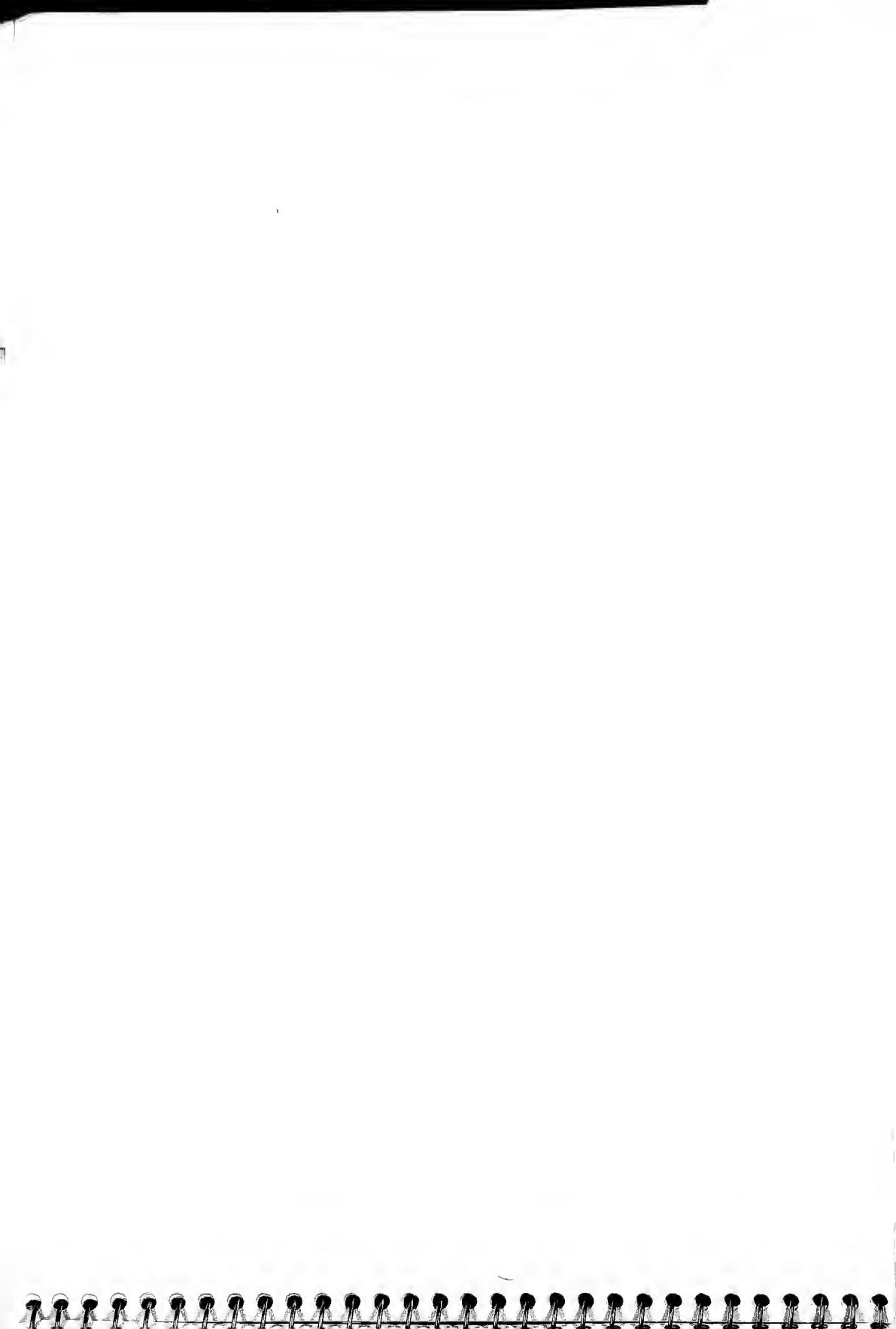
fossil hash in
and rock

1"-6' ripple marks, and
medium bedded, some

1"-4"

Covered
roadwork





(69)

- Continued -

Westerly Hill

Perf. soil, yellow ^{massive}, 4' bed at base
1 side
runoff



apple tree, no stones
iron stained, loose
loam (gravelly)
at salt trees, on clay surface
2-3' 3-cone silt beds

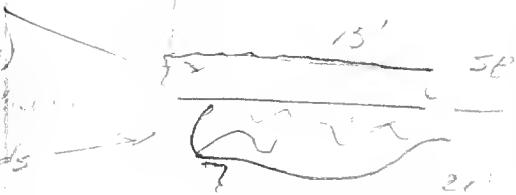


Plate
Siltstone + salt
gravel



gravel + pebbles

to



yellow silt + clayey silt + 26'

a few gravel

to

2"-3" beds

to

moist, sandy

yellow ochre soil

to



Sandy loam + gravel + sand

clayey silt



calcareous with clayey silt

Clayey silt





Continues

(70)

C 15'

photo) Clayey siltstone with 1-3"
calc siltstones

28'

(55)

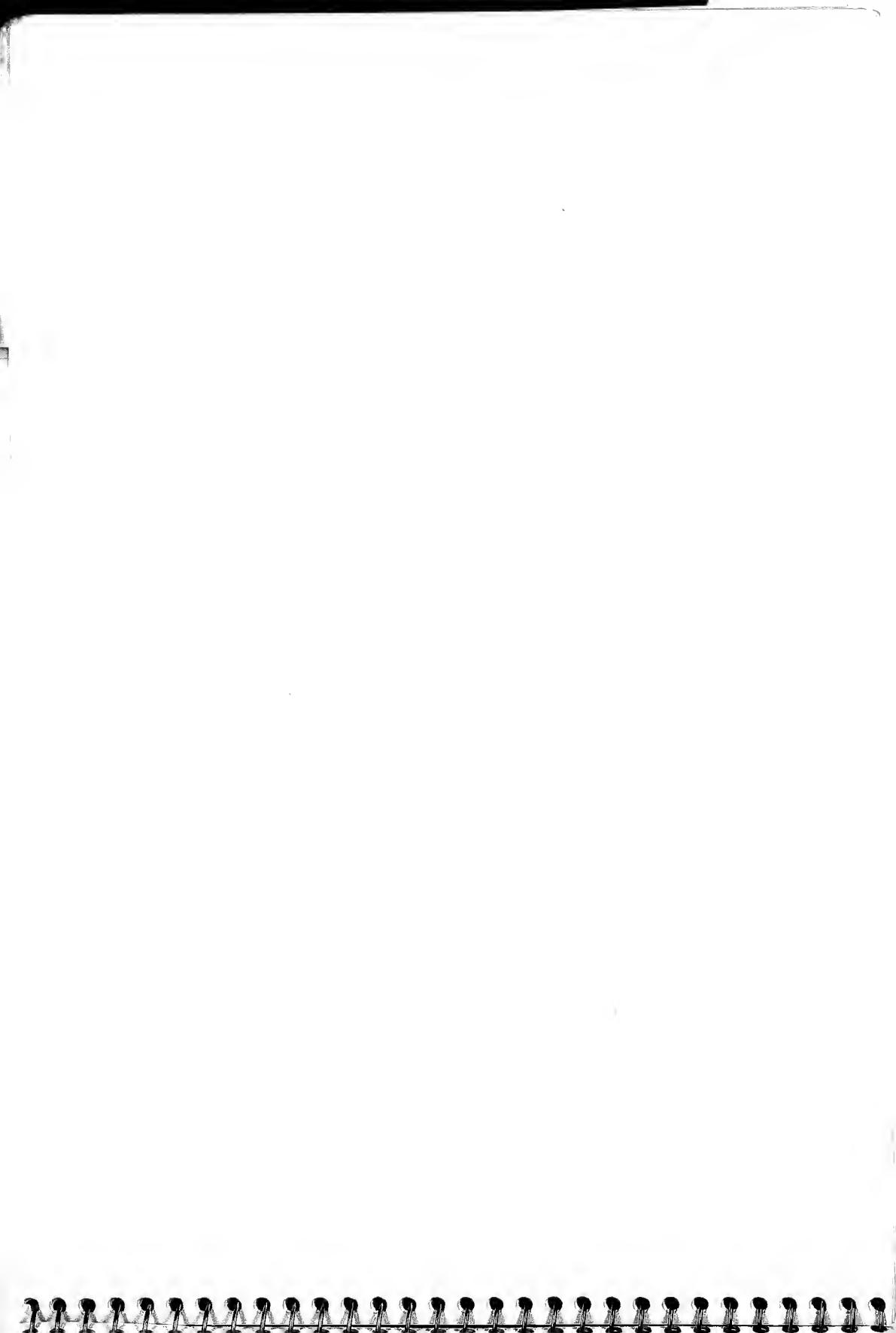
Maysville, Ky

5 ft. 5

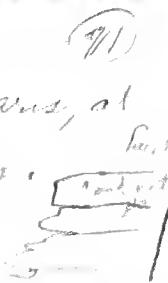
(56)

3/4

Shopping center -
massed wall behind buildings



Pans & g 6/15/98 415.65, "by-pass" north side of Pans, at
59 m.s. on pass and YMCA soccer complex. cont'd



Selva verde gialla

shorter than the others, with a
flat top.

Feb 25, 1911 D-24"

St. 14 . 15

Third
June
1915

5

卷之三

$\alpha = \frac{1}{2}$

at 70?

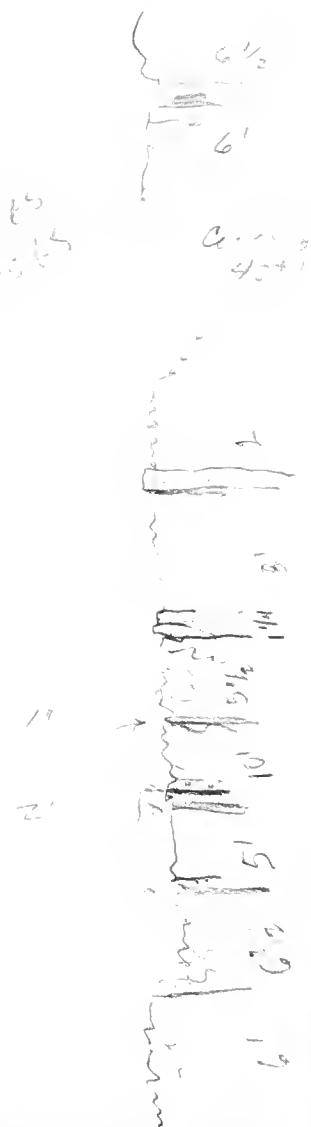
Dokument

Abbotsford (Saskatch.) 3"-4"

Boone (662 m.s.n.m.) on the 11-3 road.

Ripple bedded, fairly massive, 1/3

diversity models w/ "pebble





190

11 3 1907

1-150 class

13'

Sugden & Chapman letter book

27

1-2 1/2 in. - 1/2 in. plane

4'

1-1/2 in. - 1/2 in. plane

5' - 6'

7'

Plane 27

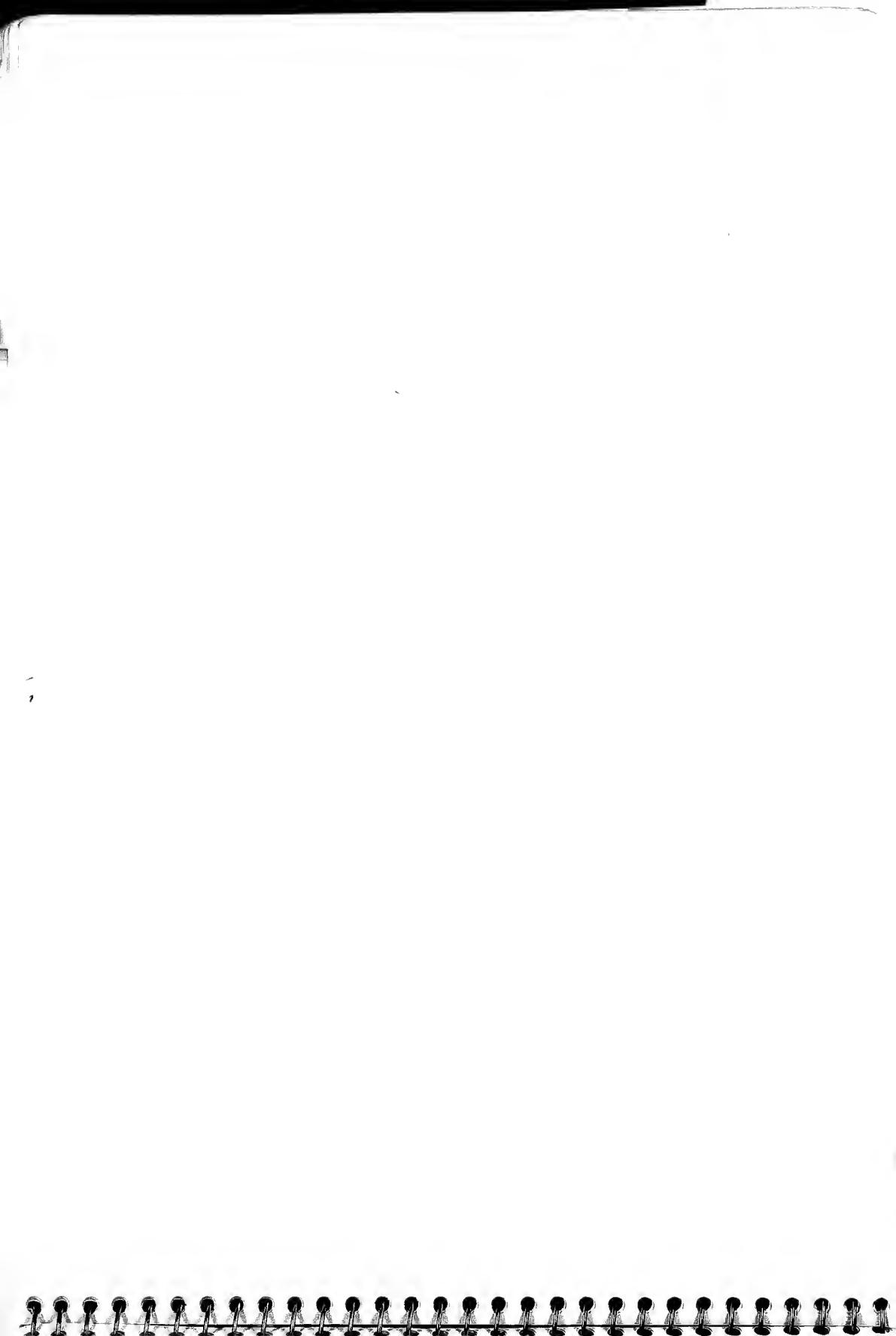
1-1/2 by 1-1/2 in. plane

8'



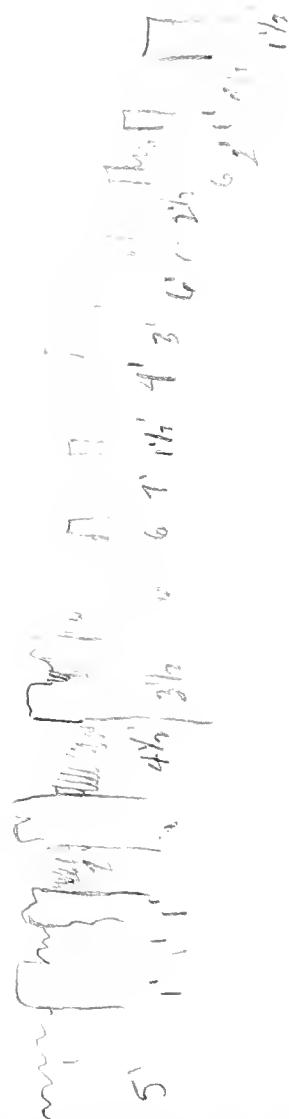
6/15/98. Two roads east of US 68 (Southwest of Hwy
20) - I-65 west of highway west, 20 miles S of
Majorsville, KY. 100' tall trees.
58 Southern Kentucky 1 m
Kentucky F -





6
10/15/98 adjacent to 47
Section of Blue Licks Battle Field : Long Key
U.S. 68 (17.56)

(59)



3-4' multiple thin calcarous frags, a few

1-2' sandstone

6/15/98 contd. We continued north on US 68 looking at cuts - some grassed over - to Mayaville. At top of hill to Kroger & Wal-Mart.

From Mayaville to I 275 near Covington on Ky 9. A good highway with numerous extensive, long sections. Lot of shale in sections.

I 275 to motel on Nine Mile Road

Lunch at Blue Licks Battleground State Park - Daniel Boone et al memorial to commemorate the 1782 battle where 102? men lost their lives & the Amer. were defeated by the English & Indians

6/16/98

75

6-17 (35)

18745 mi

Ohio
Rte 32 east

(Started day by leaving film at
Meijer's for printing - 2 rolls)

Then picked up

to relocate 1995 field stops at

35 in 1995 field book

The ramp exposure has small
trees growing on it but the strat.
section is still discernible. Filigen
Rd section⁽³⁷⁾ is rapidly being overgrown
as is the "Batavia Rd" section
where there is presently extensive
road repaving taking place

(MacDonalds; State Police; & various
other quick food restaurants (Aubie's, Burgers
King) at exit ramp at top of hill
(+ section)



76

6/16/98 M. 532. ~~Stop 39 in 1995 field trip~~
narrow road cut on east side of valley
~~old~~ & Siln. 5* photos
check?

Stone Rd (N/S) at top of hill

~~Stop 40~~ ^{1995 Field trip} on ~~the~~ OH 41 at southern end
of bridge & at Oliver Rd Alton township
line

Stop 41 (1995 field trip). 2 photos

Just west of Stop 42 (1995 field trip)
1 photo west side of road

300 yds. north of previous photo. 1 photo

Stop 42, west side of road. 1 photo

road cut
Stop 43, west side of Whiteoak Creek.
4 photos

(Contd in Book 2)



Wilson, C.W., 1949, Pre-Chattanooga stratigraphy of in central Tennessee; Tennessee Division of Geol. Bull. 56, 406 pp.

do , 1962, Stratigraphy and geologic history of Middle Ord. rocks of central Tennessee, Geol. Soc. Amer. Bull. v.73, 481-504.

Wilson, Charles W. Jr. 1990. Pre-Chattanooga Strat. in Central Tennessee 1990
2nd ed. State of Tennessee, Dept. of Conservation, Division of Geology
Bull 56. 415 p.

Expenditure

"The New Yorker includes a section entitled "The Talk Of The Town."

form. Underlining signifies italics for printing.

works of art long enough to appear in book of books, magazines, opera, and any other titles. In typing or writing, underline the titles of songs, titles of poems, and other names of magazine articles, chapters of books, titles of books, and ends with quotation marks.

2. Quotation marks are used to enclose the hopelessly."

The inscription said, "Well, your case is not a direct quotation. Each part of an interrupted sentence begins and ends with quotation marks."

1. Quotation marks (" ") are used to enclose the

Quotations

Hurry! Send your order now!

Your answer was hard to believe!

The exclamation mark (!) is used after all exclamatory sentences—sentences that express surprise, motion, or deep feeling. Also use commands or which imply need for immediate action.

Use Of The Exclamation Mark

rogative sentences that ask direct questions.

The question mark (?) is used after all inter-

Use Of The Question Mark

The dash may also be used to indicate a sum-change of ideas, but should be used sparingly. The dash is used to indicate an abrupt change in thought or an afterthought added to the end of the sentence, and to set off a word marking thought or an afterthought added to the end of the sentence.

Use Of The Dash

She ordered twelve (12) night stands for the hotel.

This appointment (which will be announced next week) will be a surprise to many.

Also use to enclose a number, letter, or symbol by way of explanation, translation, or comment. Phrases, clauses, or sentences which are used parentheses () are used to set off words, when used as an appositive.

Phrases, clauses, or sentences which are used

Use Of Parentheses

Dear Mr. Roe: Gentlemen:

The customer is always right.

Our company has always had this policy:

Please send out the following items No. 378, 379, 380, and No. 370.

Please list us,

please, and after the salutation of a quar-

ter dot, before an apposite phrase or

colon is used before a list of items

2. The colon is used to separate a list of items

from within a sentence.

The colon (:) indicates the strongest possible

Use Of The Colon

once a month.

The sales staff meets every other Tues-

day; the production staff meets only

conjunction is used.

The sales staff meets every other Tues-

day; the production staff meets only

once a month.

The semicolon is used to separate inde-

pendent co-ordinate clauses closely con-

nected in meaning who are co-ordinate

patters. Use them sparingly.

Semicolons produce rather involved sentence

or you are writing sentences that are too long.

or that you are either using them incorrectly,

are that you are getting many semicolons, the chances

because it is generally too stiff and formal. If

the use of the semicolon should be avoided

than does a comma. In most writing, however,

the separation between the parts of a sentence

is used to show a stronger

Use Of The Semicolon

sions, whether words, phrases, or clauses.

phrases, and to set off parenthetical expressions.

of a sentence, after an introductory infinitive

phrase or an absolute phrase at the beginning

of a sentence, after a participial phrase

after he had read the minutes of the meeting.

The director called for the financial report.

After the director had read the minutes of the

meeting, he called for the financial report.

After the director had read the minutes of the

comma is usually unnecessary.

ent clause does not begin the sentence, the

precedes the main clause. When the depend-

ent clause is used after an adverbial de-

The comma (,) is used after an adverbial de-

pendent clause when the dependent clause

will you send me a copy of your latest bulletin.

Ship the order immediately. (Imperative)

(Declarative)

The order was shipped yesterday.

The period (.) is used after a declarative

imperative sentence, after courteous requests,

and after abbreviations and initials.

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